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ILLUSTRATOR 10

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DV titling tools rated
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Softimage|XSI 2.0
Corel KPT Effects

December 2001

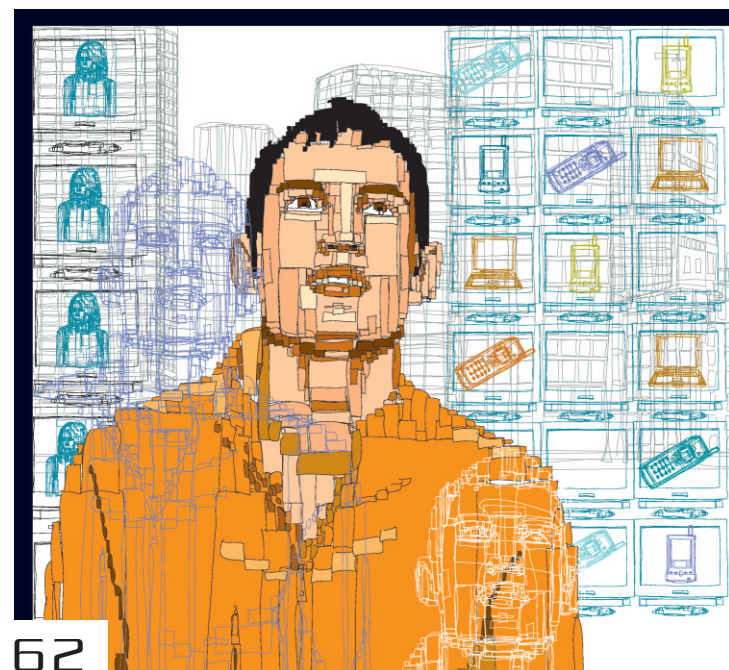
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IDG Incorporating creative
TECHNOLOGY

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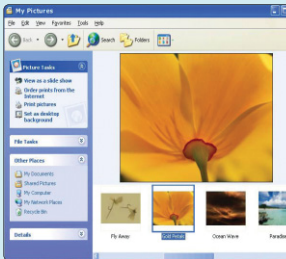
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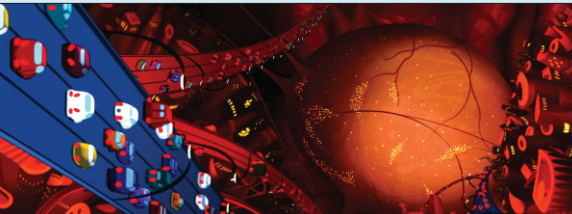
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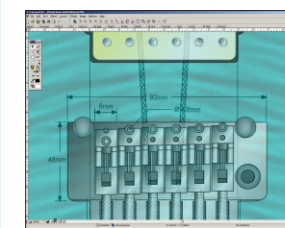
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Eat, don't hula

Find out how Glassworks used Softimage3D and its own FurShader plug-in to teach the Aero mouse some new moves for the latest advert.

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Tim Hope reworks his five-minute animated short in Discreet 3DS Max for Sony's PlayStation 2 ad.

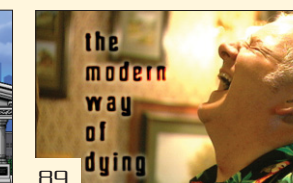


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86 Tongsville

Tongsville is the Web-based town built by Preloaded. *Digit* takes a trip to see how they put it all together.



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The modern way of dying

Discover how Keyframe used Adobe Photoshop and After Effects to create the title look for the BBC's *Everyman*.

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design solutions

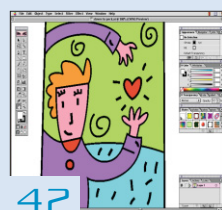
- 99 Produce better work more effectively with our tips for graphic design, Web design, and multimedia. This month features exclusive Poser 4 tips.



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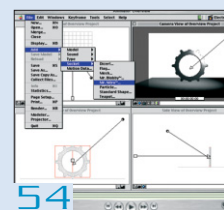
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FREE SOFTWARE! Extensis Portfolio 4

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60 subscriptions

12 issues of *Digit*, plus *The Real World Photoshop* book for £45.

111 buyers guide

At-a-glance listing of all hardware and software products reviewed.

119 digit classifieds

The latest employment vacancies and classifieds.

129 next issue/contacts

Coming soon: next issue revealed.

As per usual, there's loads more information on the CD, with a new Macromedia Director interface that lets you find out about the CD in an interactive manner. To use, simply click on the Contents icon, then browse the sections. Software demos need to be installed separately from off the CD, as do royalty-free images, and essential shareware.



NEW LOOK DIGIT INTERFACE

CDigit has a whole new look! Now, instead of information about the UK's hottest creative disc being viewed in a Web browser, the entire front-end has been created in Macromedia Director. This makes viewing the disc contents a breeze, and we have integrated the video clips from the showreel section into the interface – so you don't need to hunt for them on the CD. The new interface has sections for free programs, demos, magazine offers, essential software, resources such as royalty-free images, and a showcase that links to Digit's projects section.



demo software

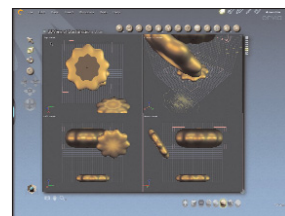
Eovia Carrara Studio 1.1

www.eovia.com



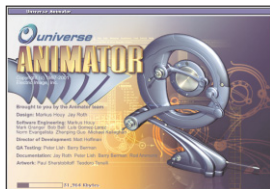
Carrara Studio is an affordable 3D solution for modelling, animation, rendering, and special effects. Optimized for performance, it enables full real-time scene manipulation and high-quality 3D rendering up to eleven times faster than its predecessors. With an intuitive interface, Carrara Studio delivers great results without a professional learning curve. Carrara Studio is a package for digital artists, Web designers and multimedia producers – even without 3D experience.

This is a three-month, save- and render-disabled demo.



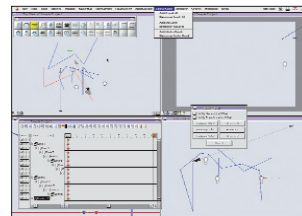
Electric Image Universe 3.1

www.electricimage.com



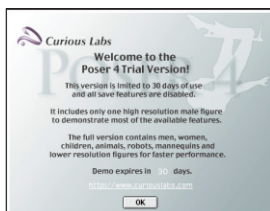
Electric Image Universe 3.1 is a high-end modelling, animation and rendering system, used to create effects on major films including *Star Wars: The Phantom Menace*. Boasting features such as camera-mapping tools and an intuitive interface, Universe has a formidable reputation for its rendering speed and quality. This version features raytracing and character animation tools.

The demo version does not allow you to save, and only renders single frames.



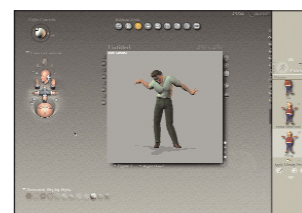
Curious Labs Poser Pro Pack

www.curiouslabs.com



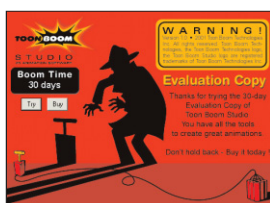
Poser Pro Pack is a 3D character animation and design tool for artists and animators. This add-on to Poser 4 also supports the export of 2D Flash animations and 3D Viewpoint 3 content for the Web and new Multiple Camera View Panes make the task of manipulating characters easier. There is also the ability to render animations and still images with 2D motion blur and host scenes inside 3D Studio Max and LightWave.

Includes one Poser character, two hair sets, and a sample Set-up Room prop.



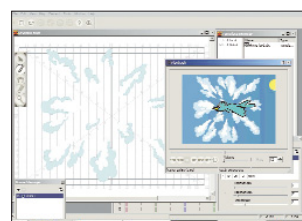
USAnimation Toon Boom Studio 1.0

www.toonboomstudio.com



Toon Boom Technologies, a leading supplier of animation software for TV and film, has developed a powerful 2D animation tool for the Web. With the ability to output material as SWF or QuickTime files, Toon Boom Studio provides a perfect solution for those developing Web cartoons and animations for Flash games or training material. Integrating professional animation techniques with a familiar design interface, this package delivers great results.

This is a 30-day trial for Mac OS X or Windows 2000.



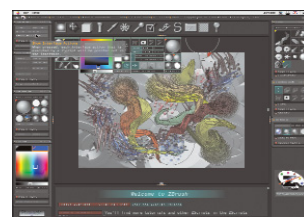
Pixologic ZBrush 1.23

www.pixologic.com



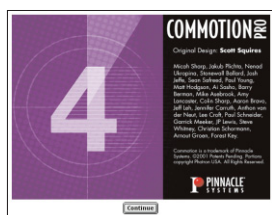
ZBrush 1.23 is an innovative painting product that simplifies the science behind generating computer graphics. By providing a unique synthesis of 2D and 3D capabilities in a single stand-alone tool, it offers tremendous opportunities. A blend of traditional and innovative tools let you create complex, high-quality graphics. Real-time rendering makes ZBrush great for storyboarding and conceptualization, and polished and processed commercial work.

This is a 30-day trial version of Zbrush with limited functions and image size.



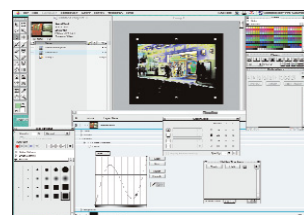
Pinnacle Commotion Pro 4

www.pinnaclesys.com



Commotion is a complete effects solution for moving images. It combines the power of the paintbrush with intuitive compositing and effects tools to deliver great performance and control. With advanced features and instant playback of video, DTV, HDTV, and film images directly from RAM or disk, Commotion provides an ideal environment for creative work from a desktop system.

This dual-platform demo allows you to try out Commotion 4 by registering a serial number via email. It is disk- and render-save disabled.



other demos and utilities

Hara Webstyle 2

www.xara.com

Webstyle 2 can help you produce top quality Web graphics in a quick and simple way, producing instant buttons, bullets, backgrounds, dividers, and headings.

This painting-by-numbers approach to designing a Web site is ideal for anyone wanting to create an attractive, no-frills project in no time at all – and without the overhead of having to delve into reams of code. Images created are optimized for the Web, and it includes a vast array of tools for the graphic artist.

This Windows-only evaluation version of Webstyle 2 has a limited library of resources, and lasts for 15 days.



ConceptDraw Pro 1.7

www.conceptdraw.com

ConceptDraw Pro offers a comprehensive set of drawing and diagramming tools for business and technical professionals. Cross-platform and versatile, it includes all the features of ConceptDraw Standard, plus more specialized libraries, CAD compatibility, and support for additional formats for easier data exchange.

ConceptDraw Professional has everything to satisfy the demanding drawing and diagramming needs of software and database developers, Web designers, managers, engineers, architects, scientists, and other design professionals.

This demo is save- and publish-disabled.



MAC ESSENTIALS

Acrobat Reader 5
Fetch 4
Internet Explorer5
Netscape 6
Quicktime 5
Stuffit Expander 6

PC ESSENTIALS

Acrobat Reader5
Winzip 8
Netscape 6
Quicktime 5
Internet Explorer 5

designers resources

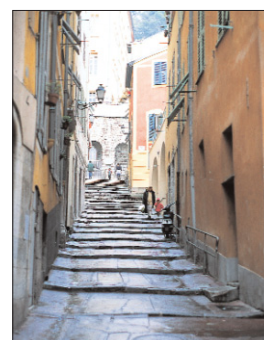
Cadmium

If price is an issue, then look no further than the ImagePRO collection from ImageDJ, which is where this month's free images have come from. ImagePRO is a collection of royalty-free stock photography that covers a broad range of subjects, all at very cost-effective prices, meeting not only your design but also your budget requirements.

Targeted mainly for editorial or smaller than A6 usage, each CD contains 50 8.5MB high resolution 350dpi TIFF images, as well as a 72dpi comping image. The images selected for your use come from *Small Nature Wonders 1*, *Summer*, *Dogs*, *Good Morning*, and *Alleys*, *Streets & Roads*. ImageDJ also offer their designMaster series, which is a collection of ultra high-resolution composite layered image modules in Adobe Photoshop's PSD format.

For further information on either of these ranges contact, Cadmium on 0800 436 867, email sales@cadmium.co.uk, or browse www.cadmium.co.uk.

You're granted the personal, non-commercial, perpetual, non-exclusive, non-transferable worldwide right to use the images included on this CD according to the standard licensing terms of the ImagePRO product range. For full details, please contact Cadmium.



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The headline of this column says it all, really. An essential, insightful word that sums up digital creativity. A gem of knowledge that you should take to heart and keep printed above your desk to remind you of the sheer joy of using cutting-edge technology to push the creative envelope further than ever before.

What? You can't understand it? You mean the rank and file and O's and 1's doesn't instantly bring forth understanding and enlightenment in your field of digital content creation?

So what's with the headline – and why does it look like I accidentally lent on the keyboard while dreaming up this column? Two things: it's both a test and a call to action in an industry that preaches the global reach of technology yet rarely delivers. In fact, the first reader to send me a translation will get a prize and maybe even a spot of fame next issue.

But it also has a serious purpose. The Web is hailed as the foundation stone of a global village, yet we in the West (apologies to the East and South) are often too blinkered by our culture to realize there's an entire world out there – and the majority of it doesn't actually subscribe to our cultural design cues or even speak our language. It seems as if we live in the global village – in fact we're one of the main architects – then went and moved into an isolated hut at the end of the street.

The Web is truly a global medium. According to Vinton Cerf, who can claim to have invented the Internet without being subjected to ridicule, the global reach of the Web is truly staggering. In 1973, Cerf created the Internet Protocol (IP) that ties together the threads of the Internet.

Cerf has said that the way things are going, an "intergalactic Internet" is not out of sight. That may be so much hyperbole, but there are some stunning figures to back that up. In January 2001, there were 573 million Internet users worldwide, he says, and predicts that figure will grow to a massive 2.2 billion users by the end of the decade.

Now this may come as some surprise, but most of these users don't speak English. Most of them won't share the same cultural references of take-out pizza, multiplex cinemas, *Eastenders* and cockney accents, Gail Porter, Jimmy Saville, George, Zippy, or even Bungle.

Instead, a global blend of worldwide cultural icons will have to replace the design ideology we deploy today. Oddly enough, in order for us to be as inclusive as possible, we're going to need to think differently.

When Web sites are created, most designers look no further than their local surroundings for inspiration. Yet when you create icons and buttons for a Web page, the imagery deployed can mean many different things

to different audiences. And one thing is certain – on the Internet, once a site has gone live, you have no control over who sees your work and how they interpret it. Once live, you are no longer a Web-site editor – the site visitor is, and they may hold different values and cultural cues than you do.

The outlook isn't good. According to research carried out by IDC and WorldLingo, over 95 per cent of the top 50 Web sites were unable to respond to email requests in languages other than English. Only two companies – Microsoft and Travelocity – managed to respond, although Microsoft took a whopping 127 hours to dust off its schoolboy French and string together a reply.

So what's the answer? Acting globally requires a different skill than simply being part of the global march of technology. It demands that creatives plan for and acknowledge that the majority of the world isn't us. It means planning sites so different languages – and the cultural-infused design that goes into them – are the norm.

The danger is that as an ever-expanding audience becomes more cosmopolitan in flavour, the English Web will become nothing more than a tourist sideshow – while sites that work in Chinese, Portuguese and so on, are the norm.

Send your answers to dialogbox@digitmag.co.uk

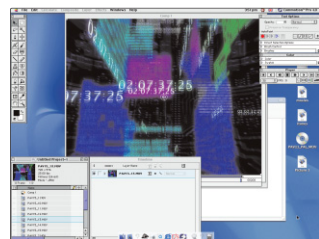


MATTHEW BATH

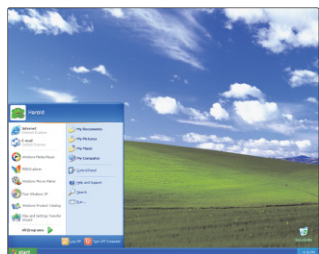
[Most people won't have share cultural references of take-out pizza, *Eastenders* and cockney accents, George, Zippy, or even Bungle.]

Mac OS X battles Windows XP

Both Microsoft and Apple are squaring up for an operating system slugfest, with each having released 'next-generation' systems that boast greater power and stability.



Classic environments
Mac OS X can still run older programs.



Start me up
Windows XP has a new Start menu.

Aqua or Luna? If you're cynical about the operating systems launched by both Apple and Microsoft over the past month, then the cutesy names for the graphical interface of each new OS is really the only choice that separates Apple's Mac OS X 10.1 and Microsoft Windows XP.

Both companies are touting high performance, advanced technology, and increased stability – and are promising a next-generation operating system that will appeal to digital content creators.

Apple led the charge when it unveiled the latest upgrade of its Mac OS X operating system at the end of September at the Seybold Conference held in the US.

1984 all over again

Apple CEO Steve Jobs debuted the latest update to the operating system he called Apple's most "significant operating system overhaul since 1984."

Apple started shipping the first version of the Mac OS X in March – Version 10.0 – but it wasn't well received by users and analysts, because it lacked some key features and had suffered performance difficulties. But this upgrade attempts to remedy that situation.

"This is the mainstream release," Jobs said. "We're beyond the early adopters."

The updated operating system, brings features including DVD playback

and DVD burning to the "dock," which would be the Mac OS equivalent of Microsoft's Windows Start button.

The operating system's upgrade also improves on its predecessor's performance and speeds up operations such as the launching of applications and resizing of windows. Meanwhile, Apple also added system status icons, similar to those in Windows, including audio, Internet connection details, and date and time details, to the toolbar.

Apple also took plug-&-play one step further, so that now when a user plugs in a USB printer, the operating system automatically recognizes the printer and begins printing any files in the printing queue.

For the next three months, Apple will focus on applications, Jobs said. "There are already about 1,500 applications shipping for OS X," he said. "And more of the important applications we use every day are going to ship OS X-native in the next three months."

DVD burning

Mike Evangelist, marketing and product manager with Apple, gave a demonstration of Apple's second generation DVD burning software, iDVD2, which allows users to create a DVD that is playable on home DVD players.

It features enhancements over the previous version, giving users the ability to create motion menus, as well as

include video and music in the background of the DVD menu. It also allows customization of buttons and text, as well as of objects in the background, Evangelist said.

The update featured a swath of minor tweaks – although Apple was keen to tout its industrial-strength performance. Mac OS X is based on Unix, and delivers true multithreading and protected memory. Technologies such as OpenGL and PDF imaging are including in the core of the system.

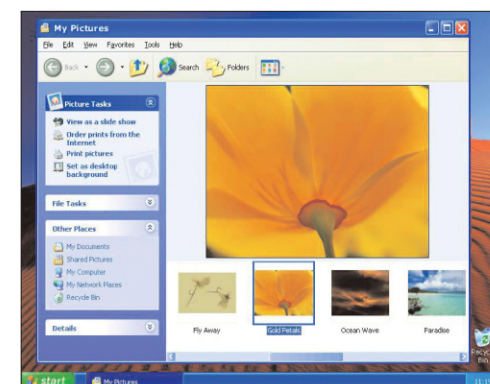
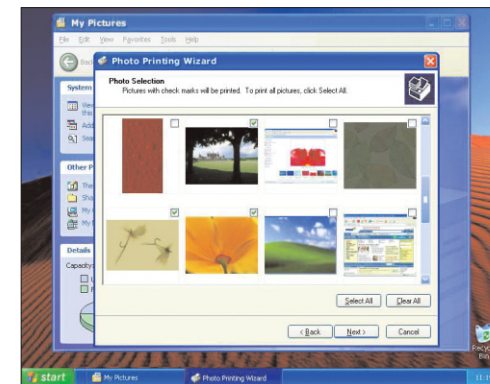
Windows XP launched

Meanwhile, Microsoft unmasked its anticipated Windows XP operating system at a flashy event in New York's Times Square late last month. The event was hosted by Bill Gates.

Unlike Apple, the company is betting big on the new operating system to drive its strategy of pervasive computing, called .Net. Apple instead wants to focus on Mac OS X as the centre of a digital lifestyle hub.

With Windows XP's built-in features such as messaging and notification, Windows XP is pegged as the first major operating system release Microsoft since Windows 95.

Windows XP is divided into two editions – a standard and a professional version. Windows XP Professional is aimed at advanced users, including design, Web, and 3D designers, as well as video producers.



Spot the operating system difference.

Both companies are touting strong multimedia handling skills, such as enhanced video support and plug-&-play image capture.



From Windows NT and 2000, it inherits a secure, stable core. From Windows 9x and Me, it has compatibility with hardware and software, as well as tools for working with digital images, video, and audio.

Luna lander

The Professional edition is based on Windows 2000 technology. New features include Windows File Protection and side-by-side dynamic link library (DLL) support – which Microsoft says will stop core system files from being accidentally overwritten.

The interface, dubbed Luna, features changes to the Start menu and taskbar.

The revised Start menu displays links to frequently used applications, essential system folders, and common tasks. The taskbar sports new space-saving features, says Microsoft. Links to documents or windows for the same application now pop up vertically from a single taskbar button.

Other changes in appearance include drop shadows, translucent icons, and animated cursors. Included is support for ClearType – which makes jagged fonts appear smoother on LCD screens.

Digital media support includes native support for burning CDs, plus plug-&-play support for digital cameras and scanners.

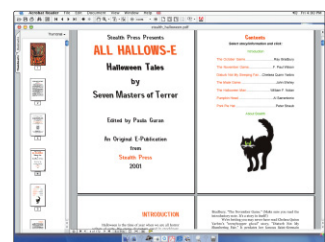
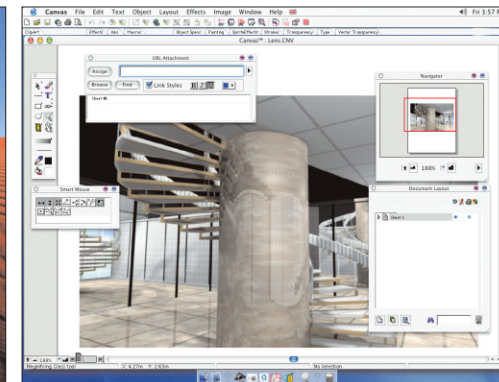
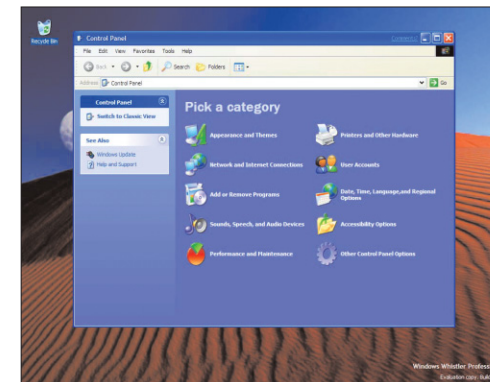
Windows XP gives digital photography users a camera-friendly download, viewing, and printing interface. Windows XP's My Pictures folder presents links to specific tasks related to the folder's content: viewing a photo slide show or printing photos.

Operation upgrade

The October 25 launch of the operating system marked the date when Windows XP was distributed widely in retail stores and through manufacturers.

Both Mac OS X 10.1 and Windows XP are available now.

Apple, www.apple.com/uk
Microsoft, www.microsoft.co.uk



Professional support
Adobe Acrobat is running on OS X.

Aqua vs Luna: the new interfaces at a glance



Blue is the colour. Both Apple and Microsoft have enhanced the interface designs of both Mac OS X 10.1 and Windows XP. The interfaces are dubbed Aqua (Mac OS X) and Luna (Windows XP). Both sport features such as high-resolution graphics, although Apple's photorealistic graphics have the edge. Additionally, both feature font technology that smooths onscreen typefaces.

DESIGN EVENTS

Digital Media World

Olympia, London
November 13-15, 2001

The biggest UK event for digital creatives, especially for digital video and 3D producers. This year, it features a new conference stream called Game Zone, and a streaming-media conference will feature. *Digit* will be running FREE seminars for all attendees.

MacExpo 2001

Business Design

Centre, London
November 22-24, 2001

With no dedicated Apple expo, this offers the next best thing. See all things Mac, and get up-close to the latest from such companies as Adobe. STOP PRESS: Apple is now to appear at the show, taking a the biggest stand in the place.

Digital Solutions

ExCeL, London

November 27-29, 2001

The UK's only digital print and workflow event, held in London's Docklands. Aimed at digital-printer users, it includes a huge exhibition, plus free seminars and education programme. Also includes free entry to the Digital Camera Show.

Digital Media Revolution

Victoria Park, London

November 29-30, 2002

Pay-for conference with top-level speakers from companies such as IBM, AKQA, Google, and Flextech TV. Explores business opportunities for repurposing your creative content.

30December

London

December 3, 2001

Cult annual gathering of Alias/Wavefront users, where visitors can share all things Maya, plus see third-part tools. Includes demos, showcases, seminars, and more. *Digit* is now a key media sponsor of the event.

Video Forum 2002

Wembley, London

February 5-7, 2002

Bigger than ever UK event for video producers and Internet video. Includes a larger exhibition, free training seminars, and expert masterclasses covering a range of video skills. Topics include DVD, iTV, digital TV, and Web streaming. Entry is free.

All events are listed in full at
www.digitmag.co.uk

Athlon XP snubs MHz ratings

AMD's next-generation of workstation processors are ditching MHz as a rating, and dismisses Intel's Pentium 4 chip as 'missing the point'. But will users get it?

In a second attempt to sell its PC chips on the basis of system performance instead of sheer processor speed, Advanced Micro Devices is beginning a new branding strategy for a fresh set of Athlon XP chips aimed at graphics and animation creators.

AMD's True Performance Initiative, unveiled last month, labels Athlon XP chips based on overall system performance when running Windows applications, not on individual clock speeds. Gone are the familiar MHz ratings on the four new Athlon XP chips, replaced by performance ratings such as 1800+.

Translating performance

In performance terms, the new Athlon XP 1500+ chip equals a 1.33GHz processor. The 1600+ equates to a 1.4GHz chip, the 1700+ to a 1.47GHz chip, and the 1800+ equals a 1.53GHz processor, according to AMD.

The sudden downplaying of MHz speeds from AMD, which carved out more than a 20 per cent share of the PC processor market by publicly racing rival

chipmaker Intel to the 1GHz chip speed and beyond, comes in the aftermath of Intel's release of its Pentium 4 processor.

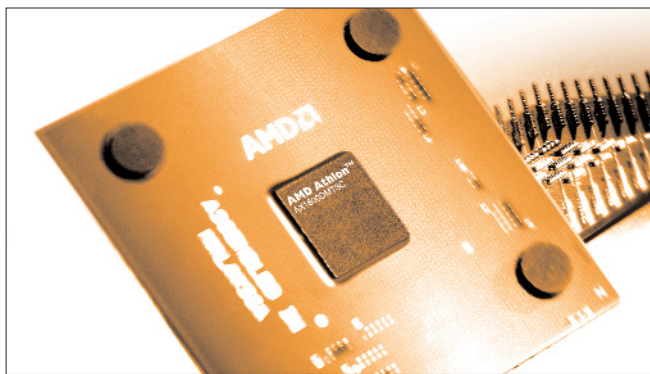
AMD believes that Intel missed the point when it designed its Intel Pentium 4 chip, which for the first time departed from Intel's x86 processor architecture to a new architecture Intel named NetBurst, said Linda Kohout, a brand manager for AMD's Duron processor.

Hyper-GHz tricks

According to Kohout, Pentium 4 chips may be hitting hyper-GHz marks internally, but overall system performance is actually dropping.

"With the Pentium 4, the amount of work went down for the first time, as much as 20 per cent," Kohout said. "Even though the Pentium 4's [megahertz] goes up, work for clock cycle actually goes down."

An Intel source regarded AMD's rebranding strategy as a defensive move from a company that cannot compete with Intel's Pentium 4 chips, which have been demonstrated running as fast as 3GHz.



AMD shuns MHz ratings

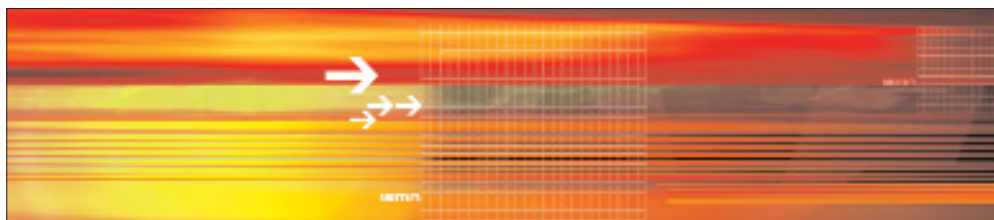
New XP processors from AMD will carry new names to determine performance.

AMD chips have not fared well in the lucrative Windows and notebook market, so selling Athlon XPs could be particularly tough as consumers represent the most likely market for the Athlon XP line – consumers who are used to judging chips by their processor speed.

With its Athlon XP chips, AMD has engineered what the company calls QuantiSpeed architecture, which delivers

as much as a 25 per cent performance advantage against Intel processors in a broad array of real-world applications, such as digital-media creation, general productivity, and 3D content creation, officials said.

Industry pundits agree, saying the internal clock speeds of the Athlon XP chips are somewhat slower than the relative performance they deliver within a complete PC system.



Alliance touts 'streaming Holy Grail'

The Holy Grail of streaming media is to deliver audio, video and interactivity to virtually any IP-connected device – yet a bevy of proprietary formats and a lack of standards muddies that goal, slowing the growth of streaming media applications.

Last month, the Internet Streaming Media Alliance (ISMA) released the first version of the ISMA specification, a set of open standards designed to get past the incompatible players and formats that plague the industry. ISMA 1.0 provides guidelines for which format and protocols to use when deploying solutions to ensure interoperability between different vendor offerings.

ISMA 1.0 calls for companies to use

the new MPEG4 audio/video compression standard and the Real-Time Protocol and Real-Time Streaming Protocol for delivering media. It also calls for the use of Session Description Protocol for announcing which streaming media programs are available for playing.

"You can have a server from Sun talking to a player from Apple and the content itself was encoded by a Philips machine," ISMA board member Tim Schaaff says. "[ISMA 1.0] is more a collection of hints and suggestions to create interoperable products."

Currently, Microsoft Windows Media players can only talk to Microsoft servers, while RealPlayer receives its information

from a RealServer. Under ISMA 1.0, any MPEG4 server can talk with any MPEG4-compatible player. However, it will still be a few months before we see products that conform to ISMA 1.0.

"Streaming is like any other kind of communication – you need to have an end-to-end solution," says Ken Lowe, vice president of business development at Sigma Designs. The company is a member of the alliance.

Other companies involved in ISMA include Apple, Cisco, IBM, Kasenna, Phillips, Lucent Technologies, Analog Devices and Inktom. The ISMA 1.0 specification is available from the ISMA Web site at www.isma.tv

Media 100 completes streaming sell off

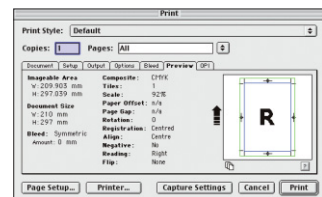
Media 100 has finalized the sale of its streaming media software assets to Discreet. With the deal closed, the company has received \$16 million (around £12 million) in cash. The company says it will use the money to finance the development and launch of its next-generation platform of digital media solutions.

"This announcement... ushers in a new era of development and innovation," said Media 100 CEO John Molinari.

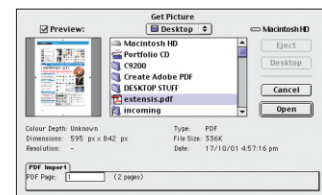
Media 100, www.media100.com



QuarkXPress 5.0 UK beta here



One day my prints will come
New preview and DPI options added.



PDF support.
Preview PDFs before importing.

Finally, Quark has released the international version of QuarkXPress 5.0 beta. *Digit* got hold of a copy and took it for a test drive. Here are the first impressions.

Quark has released the beta version of QuarkXPress Passport 5.0 – and is the first beta version of the much-anticipated upgrade to the DTP package that will run on international operating systems. However, if you're running Windows, you've lucked out – the beta only works on the Macintosh.

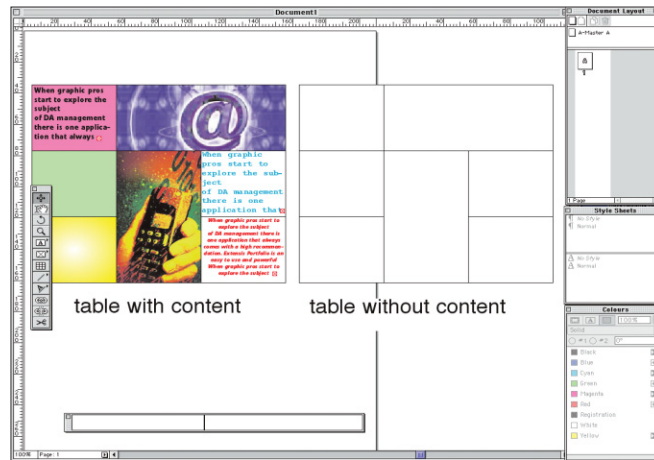
The public release – which works for three months – heralds the upcoming release of QuarkXPress 5.0, and the company says it's seeking feedback from users on bugs and features.

New features and an interface redesign headline the release – although Quark is keen to stress that the beta version doesn't include all the planned features.

Platinum finish

The interface has been updated, with palettes adopting the Platinum look-&-feel of the Macintosh operating system. Quark says the new release won't run natively in Mac OS X, though, and says it will release a carbonized version at a later date.

QuarkXPress 5.0 adds a new Tables feature that allows users to create graphically rich tables to structure design elements or organize tabular data. Tables are drawn on the page, then cells can be merged, turned into picture



A table for five
Creating a table means images, text, and colours can be quickly composited.

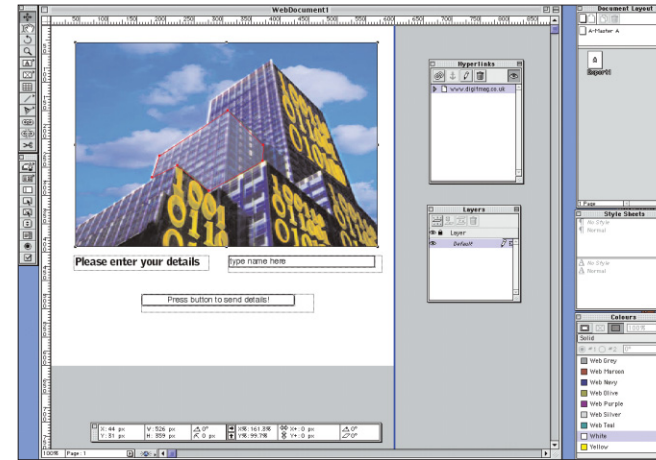
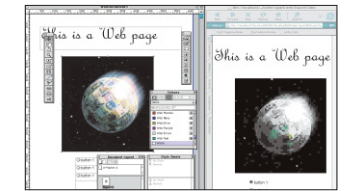
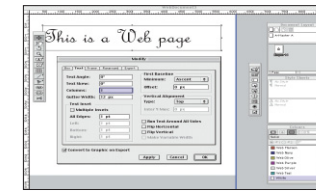
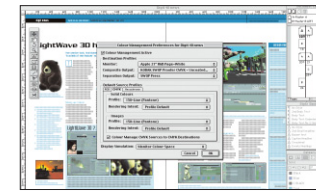
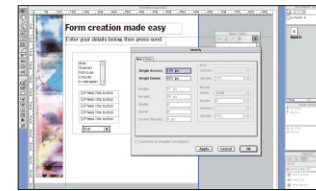
or text boxes, and be dynamically resized. Full typographical and image controls can be applied to cells and row, and tables can be converted into container boxes, says the company.

A Layers feature is available in the beta version, which lets designers work on different layers – an addition the company says will make managing document variants quicker. Quark says the feature is in response to designers looking at creating multiple-version files, or documents with different language

text. Layers can be locked and hidden, as well as reordered, says Quark.

Significantly, the new version includes a suite of Web-design tools. The move, says Quark, is to equip designers with Quark tools that can output to the Web – including new tools for forms, imagemaps, interactive menus, buttons, and data collection.

QuarkXPress 5.0 now includes the ability to determine what kind of document a designer is working on – such as a print or Web page. If the Web



XPress speed to the Web

New Web tools, such as the imagemap tool (bottom left), mean QuarkXPress 5.0 can export to a range of media. Layers (bottom right) have been added to the new version.



page is selected, a new tool palette is available, letting designers create form containers for data collection. Images can be hyperlinked with polygon mapping tools, while a new Hyperlinks palette is available for linking any object to Web sites or local files.

New Web features

Other Web-centric features include control over image quality of imported graphics, plus the ability to transform text into graphical images. Object, such

as pop-up menus, can be double-clicked and modified from the resulting dialog box, with accurate control over positioning and linking.

Quark says other features slated to make the final cut include improved print controls, extended PDF support, plus the ability to import and export XML documents.

The Print dialog has been revamped, with a more comprehensive preview window detailing crop and bleed marks, and more options for non-PostScript

printers are promised. New colour management tools feature, too.

XML features will appear in the form of an integrated version of Avenue.quark – an XTension that brings XML functionality to the DTP package.

Other features include contextual menus, the ability to look for bad word breaks, plus widows and orphans, collect fonts for output, and an improved spellchecker that can examine a selection of text rather than the full document. Quark, www.quark.co.uk

Top features in QuarkXPress

- **Tables** – layout text and images using cells and rows.
- **Web tools** – create Web documents, including form elements and imagemaps.
- **Printing** – improved Print dialog box with real thumbnail previews.
- **Preflighting** – collect ICC profiles and typefaces when sending to repro.
- **XML** – an integrated version of Quark's Avenue.quark for exporting the XML.
- **New interface** – smarter interface, complete with contextual menus.
- **Spellchecker** – spellcheck selected text areas rather than an entire story.

3D users vetted in Softimage animation contest



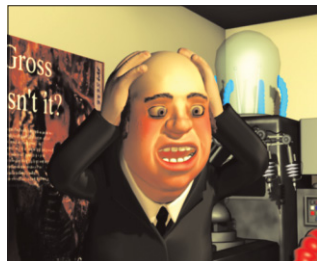
The European Junior Animator's Award was decided last month, with the winner scooping a copy of SoftimageXSI 2.0. The awards, organized by Softimage, were open for entries across Europe, and were aimed at rewarding emerging talent in the field of 3D animation.

The three main winners, however, have all studied in the UK, with the overall winner – Owen Simons – impressing the judges with his animation short about a homicidal vet. Over 60 entries from around Europe were submitted, according to Softimage.



Winner Simons graduated this year from the Glamorgan Centre for Art and Design Technology, and is working with Blue Monkey Studios in Cardiff. As well as a copy of SoftimageXSI, he also picked up a Hewlett Packard workstation, SoftimageXSI training from the Surrey Institute of Art and Design, plus a collection Softimage goodies.

Second prize went to Kevan Shorey – a third-year student at Bournemouth University. He says he plans to focus on 2D animation and embark on a Master's degree



course. His prize include training at the Surrey Institute of Art and Design. Finally, John Hedley won a Softimage goodie bag for his third-place entry. He graduated last year from Teesside University.

The show organizers said the criteria for submissions was a piece of 3D animation produced in any 3D package, plus a storyboard. The judges said they looked for pure animation skills, originality, conceptual skills, and design integrity. Next year's competition will be announced next month in *Digit*.



FREE streaming tool!

Lucky *Digit* readers in need of Web streaming can take advantage of a great offer from Web video specialist Webstreaming.com.

The company is offering three months FREE Web streaming to the first 100 readers to request a Webstreaming software box and return the card inside.

The software includes a CD showing how Web streaming works. The offer – which is worth £300 – is limited to the first 100 readers, so you'd best hurry.

To request a Webstreaming software box, simply visit www.webstreaming.com/digit and enter your details. Please note that this offer expires on December 31, 2001.

3December event is go

Promising a 'day for the entire 3D community', AliasWavefront is to hold its annual 3D festival on December 3, 2001. Held at The Drome in London, it's part of a worldwide gathering of users that celebrates the use of 3D computer graphics. Last year the event witnessed 20,000 designers, animators, and artists take part worldwide.

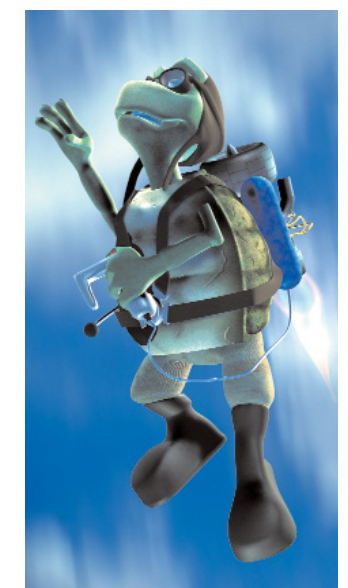
The event pulls together seminars, tutorials, and exhibitions – and the company says it gives users a chance to get a sneak peek at plans for the year ahead. AliasWavefront promises top name speakers in attendance, with the main stage given over to showcases of how blockbuster movies such as *Final Fantasy: The Spirits Within*, were created. Other highlights include how the hit Sony PlayStation 2 game *Gran Turismo 3* was created.

The company says there will be separate recruitment zones for artists to explore employment options, plus an educational zone for gaining an insight in how to break into the 3D industry.

AliasWavefront users will also be on hand to showcase work created with the company's tools, and the company says that other 3D software and hardware companies will be exhibiting.

Users can also pay to attend master classes, which will cover advanced techniques for character animation, rendering, and expert dynamics.

The festival will be free to attend, says AliasWavefront. *Digit* is a key media sponsor to the event, and *Digit* readers can register either by sending an email to info@aw.sgi.com, or on the Web at www.3December.com.



USB 2.0 vs FireWire heats up

USB 2.0 peripherals are rolling out – promising faster connections between your DVD-R drive, scanner, and printer than FireWire (IEEE 1394) currently delivers.

The gloves came off last month in the on-going fight over next-generation computer interfaces as vendors took the wraps off a wider range of IEEE 1394-based products, while also showing their first devices that support the new USB 2.0 interface at the World PC Expo show, held just outside of Tokyo.

Relight my FireWire

The IEEE 1394 standard, which is sometimes called FireWire or iLink by Apple and Sony, has been around for some time although it is only now beginning to gain support as a wider range of peripherals and PCs that support the standard come on the market.

USB 2.0, which counts chip giant Intel as one of its main backers, is the new kid on the block and is expected to start being built into PCs and peripherals from later this year or

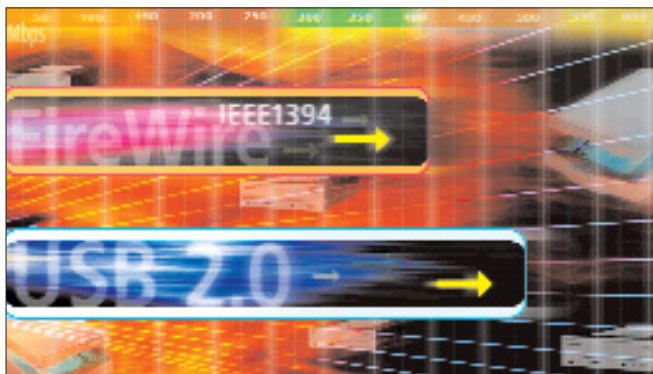
early next year. Many workstation makers have been coming forward in their support for USB 2.0.

In terms of performance, the jury is still out on which has the edge but in terms of basic numbers, USB 2.0's 480Mbps (bits per second) maximum data transfer rate exceeds the 400Mbps of IEEE 1394. Vendors are also yet to pass judgment and the exhibition showed a growing number of peripherals from a selection of companies, both large and small, supporting both standards. However, only IEEE 1394 currently has workstation penetration.

MO' connectors

Its new IEEE 1394 peripherals included a pair of external MO (Magnet Optical) disk drives that support 640MB and 1.3GB disks, and will cost around £200 and £300 respectively when they go on sale later this month.

Other companies unveiling IEEE



The race is on:

USB 2.0 is said to exceed FireWire's maximum speed - but will it be accepted.

1394-based devices included Panasonic, which was displaying an upgraded version of its external DVD-RAM drive, now with added support for DVD-R disks. The drive went on sale last month and carries a price tag of around £300.

For the USB 2.0 camp, Yamaha was showing CD-R/RW drive that will be available from mid-October, and Melco had a pair of external hard disk drives, with capacity of 40GB and 60GB, that went on sale in September.

Seybold heralds PDF, workflow tools

Document workflow management and security were on the agenda at the Seybold San Francisco 2001 publishing conference held in September, as vendors in the wireless and security arenas rolled out new offerings.

Ansys Technology at the show demonstrated a PDF plug-in designed to let mobile users interact with and save PDF forms on handheld devices. The Mobile Office PDFForms plug-in lets

users to fill in and save forms without being connected to the Internet.

Network printing vendor Electronics For Imaging (EFI) and digital rights management provider Authentica announced a partnership to jointly develop a document security product.

The software is designed for organizations that work with copyrighted documents. It offers the ability to recall or expire information at any time and track how often a document is accessed and printed throughout its lifecycle

Mobile PDFs offered

Adobe unveiled a slew of new software applications and upgrades as well as industry partnerships, including a release of its Adobe Acrobat Reader that enables users to view PDF files on Pocket PC handhelds.

The company released Adobe Acrobat Reader 5.0 for the Pocket PC. The new version of the Acrobat Reader, which is available now in beta version, resizes PDF documents to fit on a small screen and allows Pocket PC users to read, navigate and search those documents. A beta version of the Acrobat Reader for Pocket PC is now available for free download.

Adobe revealed that Acrobat 5.0, PageMaker 7.0 and the newly announced InDesign 2.0 software products will let users create PDF documents specifically for Pocket PC devices. PDF files created in those applications will be automatically tagged with information regarding how those documents will appear on handhelds.

Adobe debuts AlterCast

The company also announced Adobe AlterCast – the company's imaging server software that automates the manual task of managing images for the Web.

Adobe said it is teaming up with industry partners to make its software more widely available. Three makers of server software revealed they will add AlterCast to their products.

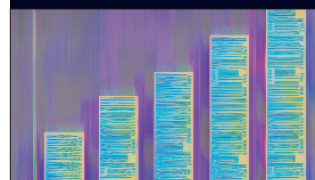
PictureIQ plans to release a server appliance incorporating AlterCast. Due out in the first half of 2002, the server appliance will power the restructuring of graphical content on Web sites.

Adobe said it plans to ship AlterCast server software in the beginning of 2002. The software will be priced based on its implementation. A single-CPU system will cost and estimated £5,000. Adobe, www.adobe.co.uk

Corel's graphic focus pays with profits

Eight months after a major overhaul of its product offerings, graphics and office suite software vendor Corel has announced financial progress in its third-quarter earnings. Corel reported revenue of \$34.2 million (around £24 million) for its third quarter ended August 31.

In January, Corel said it would leave the Linux market and base its business on its graphics software line for future revenue growth. In August, Corel spun off its Linux operating system software line to focus on what it hopes are its more lucrative graphics and office software products, including CorelDraw, Procreate Painter and Procreate Bryce.



Portable PDFs

Wireless PDFs are heading your way.

Digital Media World 2001



Billed as the best cross-media digital content creation show in the UK, Digital Media World is aiming to be a one-stop creative resource. Here's a sneak peek.

The biggest gathering of top creative companies promises to make Digital Media World – held at Olympia 2 in London on November 13-15, 2001 – one of the best content creation shows in the UK. Sponsored by *Digit*, the show includes a huge exhibition arena with companies such as Avid, NewTek, Discreet, Intel, and Macromedia showing their latest creativity software – in many cases for the first time in the UK.

Aimed at creative professionals, the show organizers say visitors will be able to preview the next generation of digital technology, learn about the latest techniques from recognized creative experts, and experience four other creation zones: the London Effects and Animation Festival (LEAF); media asset management; streaming media creation; and a new games-development zone.

Product premieres

Over the three days, the main area will be given over to leading software and hardware makers.

Discreet will be showing the latest version of its digital-video effects and compositing tool, Combustion 2, for Mac and Windows, fresh from its world debut at IBC in Amsterdam.



Animating showstoppers
NewTek LightWave 7 created effects for the movie *Driven* – see it at the show.

The company will be presenting the latest updates and integration with other manufacturers. Top demo artists from Discreet will be demonstrating 3DS Max for the Web, with output to Macromedia Director. Discreet will also introduce gmax – the game development platform and free game-content editor for 3DS Max users.

NewTek will be showing its *Digit* Best Buy winning LightWave 7 – one of the first public demonstrations in the UK. Users will be able to see new features including an integrated fur and hair shader, new depth-of-field controls,

and its fluid dynamics system. LightWave 7 also includes Motion Mixer for creating seamless 3D character animation, plus the updated SkyTracer tool for creating realistic skies – such as clouds and solar effects. LightWave 7 works with both Mac and Windows.

Avid will be debuting the latest version of Softimage|XSI 2.0, plus have a raft of other tools on hand. New features that visitors will be able to see in Softimage|XSI 2.0 include new compositing tools, high level rendering features, and Web 3D output. Other new features include an integrated dynamics simulator for hair and fur

STREAMING MEDIA: FREE SHOW OF DAVID SOUL'S *FOOL FOR LOVE*

With free entrance to all exhibition visitors and conference delegates, actor/director David Soul's production of the Sam Shepard play *Fool for Love* will be staged in the Main Auditorium at Olympia 2 during the three days of the Digital Media World show.

First staged at the Edinburgh Festival last year, Soul's production incorporates pre-shot and live onstage video, visual-effects, graphics, 3D images, time-lapse footage and digital sound to heighten the audience's sensory experience.

Fool for Love is the story of two lovers and their tragic secret set in a run-down motel room in the Mojave desert. David Soul, probably best known for his role as Hutch in the popular television series, *Starsky & Hutch*, not only directs the play but takes on the role of the Old Man.

Sponsors of the production include screen display manufacturer Barco and Artbeats Digital Film Library. Barco provided one of its CineView 12 projector – a high-resolution digital projector that uses DLP digital mirror technology from Texas Instruments and is used, say the company, to screen digital movies, big screen sport spectacles and theatre projections on screens up to 50ft wide.



Artbeats supplied royalty-free stock images and footage, which were used by post production house Rushes to create backdrops, effects and a series of projections that are shown throughout the play. The images used include stunning shots of the Nevada Desert and stock footage of different skies. These were combined with bluescreen footage of various iconic elements and the Old Man figure in the play.

generation, plus real-time per-pixel shading.

Macromedia will be showcasing its latest tools, as well as opening up possibilities for eLearning and Web-site accessibility. The company will be showing how its portfolio of tools – including Flash 5, Director 8.5 with Web 3D support, Dreamweaver 4, Fireworks 4, and FreeHand 10.

elearning lessons

Exclusive to Digital Media World will be a magazine created by Macromedia and *Digit*, exploring how to leverage those tools to create intense, interactive learning Web sites for education which showgoers can pick up for free.

Other companies exhibiting include Intel, which will be demonstrating the power of its Pentium 4 processor in conjunction with Dell.

Compaq will be showing its latest workstations for creative professionals, while digital-video and 3D workstation

maker MaxBlack will be presenting its solutions, which are tailored to each customer's workflow.

Finally, OnlineGB – one of the UK's largest digital video distributors – will be demonstrating solutions from companies such as Pinnacle and Matrox. A more detailed list of exhibitors is on the right.

Yet the show is more than an exhibition, say organizers. Four additional streams will feature, including 3D effects and animation, asset management, games design, and Web streaming.

Visitors get game

New for 2001 is Game Zone, which gives showgoers the low-down on the creation, development, and marketing of games. Topics include moving from PC to console game development, character design, and facial animation techniques. Speakers are scheduled to include Peter Molyneux, managing director of

Lionhead Studios, and Gavin Moore, lead designer at Sony's Team Soho. Moore will show how 3D animation is being used for the upcoming PlayStation 2 game *The Getaway*.

Streamy business

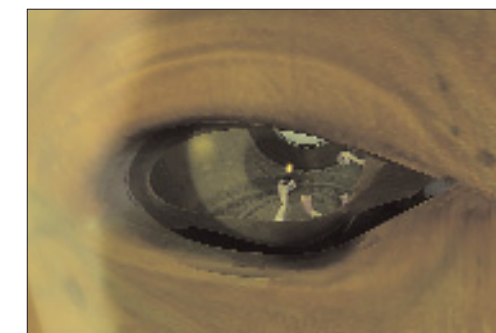
The streaming media sessions include topics such as creating content for multiple-platform delivery, and the future of broadband in Europe. Speakers include Aardman Animation's Internet manager Paul Deane, who will reveal Aardman's online initiatives and future plans.

The media asset conference will explore practical opportunities for generating revenue from effect cross-media asset management, according to organizers.

Finally, the London Effects and Animation Festival will showcase cutting-edge 3D and 2D animation over the three days. Highlights can be found over on the next page.



A eye for effects
Watch the experts create top effects with packages such as Discreet Combustion 2 (left) and Softimage|XSI 2.0 (right).



KEY EXHIBITORS

AWN
Animation UK
3D Festival
Avid Technology
Bournemouth University
Centroid Motion Capture
Compaq
Curious Labs
Develop/MCV Media
DHA Media Solutions
Digit
Discreet
Kelseus
eMotion
GEE Broadcast
IST
Intel
JVC Professional
Macromedia Europe
Magnet Harlequin
MaxBlack
MDI
Minolta UK
NewTek Europe
OCSL
Online GB
Patrick Thorn & Company
Pepper's Ghost
Realviz
Sony Broadcast
Stac
Tpic
University of Westminster

SHOW DETAILS

Digital Media World
November 13-15, 2001
Olympia 2, London

Digital Media World is the UK's premier annual forum for creative professionals at the forefront of digital content creation, management, and distribution. It's also FREE to enter by pre-registering. To register, simply enter your details at:

www.digmedia.co.uk

Digit at DMW: get free training seminars

Come along to stand 430, where *Digit* will be offering three issues of the magazine for just 4.99 – a special show price exclusive to Digital Media World. You can also check out the free *Digit* Masterclasses – full details are at the *Digit* stand.

Digit has joined forces with training and recruitment company Corps Business to offer all Digital Media World attendees FREE *Digit* masterclasses.

Designed to unleash your creativity and enhance productivity, these seminars covering all your favourite applications are not to be missed.

Digit will also be running the training classes every hour, throughout the three days.

Looking at how content is created for differing forms of output using real world examples, *Digit* will show you how to:

- Create compelling graphics – top tips on how to get the most from Photoshop
- Interactive animation – creating Flash animation for the Web
- Video editing – non-linear video editing using top programs and techniques
- Creating sticky sites – Web makeover
- Streaming video – encoding content for the Web, and beyond
- 3D to Web – the latest hot topic explained, as more 3D packages can now export interactive Web content.

Creative gurus

Pete Anderson, head of business development at Corps Business will be presenting diverse and exciting projects at the *Digit* Masterclasses. Using examples of actual projects that Corps Business have been commissioned to create, the

Digit

demonstrations will illustrate how particular software can be used to maximum effect.

Donald Kallenbach, a Corps Business trainer will also be on hand. Kallenbach is an experienced trainer and developer with a diverse range of skills applicable to printed media, multimedia and Web delivery.

With a strong design background of his own, Kallenbach has a deep understanding of how the use of creative software differs when working in the real world compared to the capability available when doing text book exercises in a classroom. Best sign up as soon as you get there!



LEAF

The London Effects and Animation Festival
November 13-15, 2001

Recommended sessions

Tuesday, Nov 13
13.30-14.30

Approaches to short form projects through Coldplay's Don't Panic, Mini ad & Sony PlayStation spot
Andrew Ruhemann,
Hugo Sands,
Passion Pictures

14.00-15.30

Masterclass; focus on compositing
Adam McInnes,
Arundi Asregadoo
& Mike Connolly,
Jim Henson's
Creature Shop

Wednesday, Nov 14
15.30-16.30

Updating classic cartoon characters for The Cartoon Network
Jonas Odell,
Filmecknarna

14.00-17.00

Traditional animation techniques in lip sync for computer animators.

Steve Roberts, **London Animation Studio.**
An interactive course where you will learn the basics of phrasing a scene, master the in betweens and adding the mouth shapes and jaw movement.

Thursday, Nov 15
14.00-17.00

Masterclass: modelling focus
The Hunt for the Death Star - creating photo realistic outer space phenomena
Oscar Gonzales,
head of animation,
RED

What to see at LEAF: *Digit* spotlights the top sessions



Integrating CG into live action in *Osmosis Jones* film

Tuesday November 13 10:30-12:00 noon

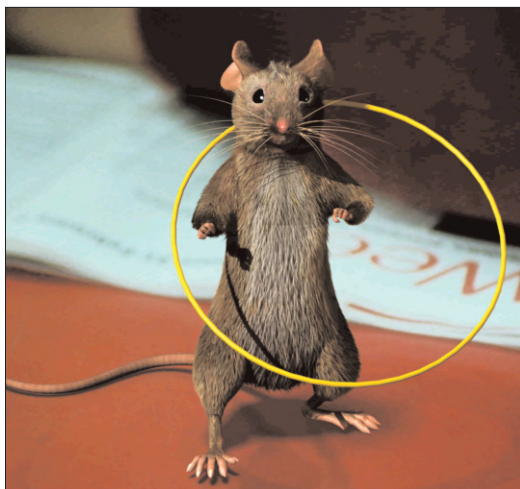
Tom Sito, Warner Brothers

For *Osmosis Jones*, Tom Sito and his team strove to continue the process of convergence that began on the *Iron Giant* of integrating 3D and 2D traditional animation in a design harmony. In *Osmosis Jones*, one lead character was completely 2D, while his partner was fully 3D. Backgrounds and the more complex camera work are computer generated.

Sito's team created effects that could then be duplicated, pulled and stretched in the computer, and placed wherever needed. The climax also has many

interesting combination shots of characters – ranging from live-action eyelashes and tears.

Sito is a 26-year veteran of animated film production. His screen credits include the Disney classics *The Little Mermaid*, *Beauty & The Beast*, *Aladdin*, *The Lion King*, *Who Framed Roger Rabbit*, *Pocahontas*, and *Fantasia 2000*. He left Disney in 1995 to help create the Dreamworks Animation unit, where his credits included *The Prince Of Egypt*, *Antz*, *Shrek*, and *Spirit Of The Cimmaron*.



Masterclass: Focus on fur

Thursday November 15 10.00-11.30am

Super Furry Animals: from storyboard to screen: the adventures of the Aero mouse

Hector McLeod, Bruce Steel, Alistair Hearnsum
Glassworks

Glassworks has a knack of creating great fur on animals of all kinds, including spiders (Frisk Spider commercial), mice (Aero commercial), and the latest Schwepps ad that features a talking cheetah. Glassworks' proprietary FurShader, developed in-house over the past three years, has been used to create highly realistic fur animals. A plug-in for Softimage|3D, FurShader lets artists manipulate such complex variables as tip and root colour, hair density, the thickness of individual hairs, and the amount of tapering per strand. See how it was all created here.

PowerBooks get speed boost to 667MHz

Apple's latest PowerBook G4s feature 550MHz and 667MHz processors and the option of a CD-RW drive.



Souped up portable performance

New-spec PowerBook G4s (left) and new iBook (above) models provide more power for users on the move.

Apple made weeks of rumours official when it announced upgraded versions of its mobile computers, the high-end PowerBook G4 and the consumer-oriented iBook.

The new PowerBook G4 comes in two models, built around 550MHz and 667MHz PowerPC G4 processors. The speedier model offers a new system bus (the path by which data is routed around the motherboard) running at 133MHz, while the 550MHz system uses a 100MHz bus.

Upgrades to both models include a 4X AGP video system and a 1,000base-T (Gigabit) ethernet port. Each system

comes with a slot-loading DVD, a 15.2-inch widescreen display, a 56Kbps modem, USB and FireWire ports and weighs 5.3 pounds.

A slot-loading, fixed CD-RW drive is available as an on-purchase option, replacing the DVD drive. This marks the first time a slot-loading CD-RW has been available for the PowerBook G4.

The 550MHz model comes standard with 128MB of RAM, a 20GB hard disk, and an integrated antenna for Apple's AirPort 802.11b wireless ethernet system. The 667MHz system offers 256MB of RAM, a 30GB hard disk and comes equipped with an AirPort card and

antenna. Both systems can be expanded to take up to 1GB of RAM, and can be customized with a 48GB hard disk.

Each system comes preloaded with both Mac OS 9.2.1 and Mac OS X 10.1. The 550MHz model costs £1,599 plus VAT while the 667MHz model costs £2,199 plus VAT.

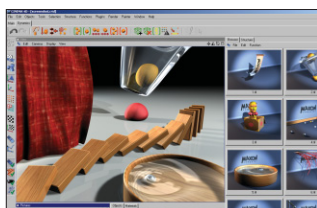
The new iBook line comes in three models, built around a 500MHz or 600MHz PowerPC G3 processor. All models offer a new 100MHz system bus and 128MB of RAM standard.

The portables also include a 12.1-inch screen, an ATI Rage Mobility 128 Graphics chip with 8MB of RAM, a 56Kbps

modem, on-board ethernet, USB and FireWire ports, and an integrated AirPort antenna (though the AirPort networking card is not included in the price). All systems are preloaded with Mac OS 9.2.1 and Mac OS X 10.1.

The low-end 500MHz model offers a 15GB hard disk and costs £935.32 plus VAT. The midrange 600MHz model comes with a 15GB hard disk and a DVD-ROM drive for £1,105.53 plus VAT. The high-end system, sporting a 20GB drive and a combination DVD-ROM and CD-RW drive, retails for £1,275.54 plus VAT.

Apple, www.apple.com/uk
0800 783 4846



Maxon has announced Cinema 4D Dynamics, a real-time physics simulation plug-in for Cinema 4D XL R7.2 upwards. The plug-in provides tools to produce realistic object interaction with minimal setup. Complex animations such as realistic collisions, aerodynamic flight, and cloth simulation can be set up in the plug-in, and keyframe baking of the resulting animation lets you manipulate the animation conventionally. Cinema 4D Dynamics will cost £395 inc VAT.

Maxon,
www.maxon.net

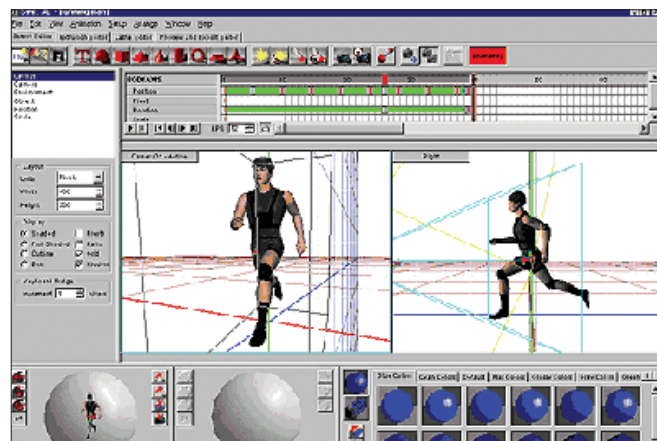


New version of Swift 3D 2.0 exports to Flash

Electric Rain has released Swift 3D 2.0 – an application that creates and renders 3D vector animations to Macromedia Flash (SWF), EPS, SVG and Adobe Illustrator formats.

The new release includes additional modelling tools, including an extrusion and lathe editor. Other features include PostScript font support, targeted cameras and lights, extended primitive selections, automated timeline scaling, non-uniform scaling of objects, numerical positioning of objects, and the ability to animate materials.

Powered by the RAVIX II rendering engine – which Electric Rain claim is the fastest and most versatile 3D-to-vector conversion available – Swift 3D 2.0 includes new rendering capabilities. These include two, four, and full-colour cartoon fills, and specular highlights for added realism in cartoon fills and gradients. Shadow rendering now allows for self, pane, and object shadow casting, while



there are now more detail settings for wireframe output. The company also claims that rendering is up to 50 times faster when handling 250,000 plus polygon models. A previewing system also debuts, letting users view and edit

rendered scenes before writing the file.

Swift 3D 2.0 is shipping for both Mac OS and Windows, and costs \$159 (around £100).

Electric Rain, www.eraim.com
001 303 543 8230



Pro film scanner offers ICE³



Minolta has announced a new film scanner for 35mm and Advanced Photo System films. The company describes the Dimage Scan Elite II as being easy enough for novices to use while still providing the advanced features required by professionals.

The Scan Elite II offers an optical resolution of 2,820dpi, which allows a scan of a 35mm to be printed at A4 at 300dpi. It offers 16-bit A/D conversion – handling 65,536 gradations per colour channel, which Minolta says is 16 times greater than its predecessor – the Dimage Scan Elite. This is backed up with 16-bit output and a wide dynamic range of 4.8 – enough to ensure most highlight and shadow detail is retained.

Minolta claims to have improved the scanner's performance with negative film, when compared to its predecessor. The Scan Elite II automatically adjusts itself

to the density range of scanned negatives, taking into consideration images with dominant colours and avoiding usual problem areas such as highlights in backlit images. According to the company, the Scan Elite II's multi-sample scanning facility gives almost noise-free images. Two, four, eight or 16 samples can be taken. The scanner also supports the majority of colour management systems for monitors – including sRGB, Apple, RGB, SMPTE-C, PAL/SECAM and NTSC.

The Scan Elite II includes Applied Science Fiction's Digital ICE³ technologies, first seen on Nikon's CoolScan range. This has three elements: Digital ICE (Image Correction and Enhancement), Digital ROC (Reconstruction of Colour) and Digital GEM (Grain Equalization and Management). Digital ICE reduces

surface defects such as scratches and fingerprints. Digital ROC reconstructs the colour of faded or badly exposed film. Digital GEM reduces image grain without removing any of the detail.

Other features include flexible image correction, automated scanning procedures and three focus modes. The standard autofocus focuses on the centre of the image, while the Point AF mode can focus on any point in the film area. There's also a manual focus facility. The Scan Elite II is currently shipping and costs £549.99 including VAT. It connects to Macs and Windows PCs using either IEEE 1394 (FireWire) or USB. It ships with a Photoshop plug-in for the Mac and a TWAIN driver for Windows. Both can be used with Photoshop Elements, which is bundled with the scanner.

Minolta, www.minolta.co.uk
01908 200 400

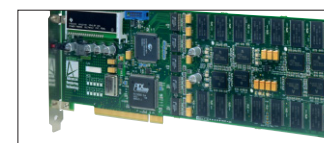
HOT STUFF

Canvas 8 ships for Mac OS X
Deneba has released Canvas 8 for Mac OS X. The company says Canvas 8 for OS X – which also works with Mac OS 9 – adds hundreds of new features and enhancements, including vector and raster Sequence recording, plus support for AppleScript, ColorSync, and QuickTime. The new version also contains customizable Web-image slicing tools, as well as direct Flash and PDF export.
Deneba, www.deneba.com

gmax is game
Discreet has released gmax – a free 3D content creation tool that lets game players create, customize, and exchange their own game content online. Discreet-approved game developers can publish gmax 'game packs' for their games titles that customize the downloadable version of gmax into a fully functional editor for supported game titles.
Discreet, www.discreet.com

2GHz Xeon launches
Intel has upped the speed of its workstation chips, launching the 2GHz Xeon for dual-processor workstations. The new processor should offer a ten per cent performance boost over the previous version, according to Intel. The Xeon for workstations is also available in speeds of 1.4GHz and 1.5GHz.
Intel, www.intel.com

Dreamsute in half a mind
Auto FX has announced a free optimized version of its Dreamsute visual-effects tool that gives it a major speed boost. It claims that the new version uses only half the memory of the original, loads twice as fast, and features faster rendering speeds. Dreamsute can run as either a standalone application or as a plug-in for photo manipulation tools such as Adobe Photoshop and Jasc Paint Shop Pro.
Auto FX, www.autofx.com



features a geometry co-processor for performing ray/triangle intersection calculations and a shading co-processor for shading and lighting calculations.

The shading chip can be programmed by the user to get settings exactly right. According to ART, the eight AR350 chips of the Pure board are capable of 1.1 billion ray/triangle intersection tests per second.

Pure will ship in November for £2,499 plus VAT.

Advanced Rendering Technology, www.art-render.com
01223 563 854



HP rolls out standalone inkjet printers

Two new photo printers feature standalone functionality, plus HP debuts first bluetooth-connected printer.



Fast photographic prints
HP's PhotoSmart 1315 and PhotoSmart 1115 enable printing straight from a digital camera, the DeskJet 960c (above) is an affordable colour inkjet.

Hewlett-Packard has launched two new inkjet photo printers, the HP PhotoSmart 1315 and HP PhotoSmart 1115.

The HP PhotoSmart 1315 has a 6cm-wide colour LCD that lets users review photographs stored on a memory card, as well as carry out simple functions such as rotate, zoom, and crop. Users can also use this panel to select colour, B&W, sepia or antique printing without turning on their Windows or Mac PC.

Time and date information can be added to individual photographic prints.

The printer's control panel includes

an email button that automatically attaches a selected photo into a message on the computer, and a synchronized save facility that recognizes new photos on the memory card and saves them to a target folder on the computer.

According to HP, the PhotoSmart 1315 prints up to 17ppm in black and 13ppm in colour and is compatible with CompactFlash, SmartMedia, Microdrive and the Sony Memory Stick.

The PhotoSmart 1115 also includes a control panel, a print cancel button, a low-ink indicator, plus a save button that uploads the content of CompactFlash

and SmartMedia memory cards to a computer. It can print up to 12ppm in black and 10ppm in colour say HP.

The HP PhotoSmart 1315 will cost £299 plus VAT and the PhotoSmart 1115 £179 plus VAT.

In a separate move, HP has just launched its first integrated bluetooth printer – the DeskJet 995c colour inkjet, which enables wireless printing directly from laptops, PDAs, mobile phones and other bluetooth-enabled devices up to ten metres away.

The £329 plus VAT DeskJet 995c offers up to 2,400-x-1,200dpi colour

print quality, and features 8MB of RAM, HP's optical paper sensor, auto-cartridge alignment and two-sided printing. According to HP, it can print up to 17ppm in black and 13ppm in colour, and comes with 150-sheet paper tray.

The company has also ushered in five new DeskJet printers ranging in price from £59 to £149 plus VAT. While the majority are targeted at home users, the DeskJet 960c offers professional print quality at 15ppm in black and 12ppm in colour says HP.

HP, www.hp.co.uk
0870 241 1485

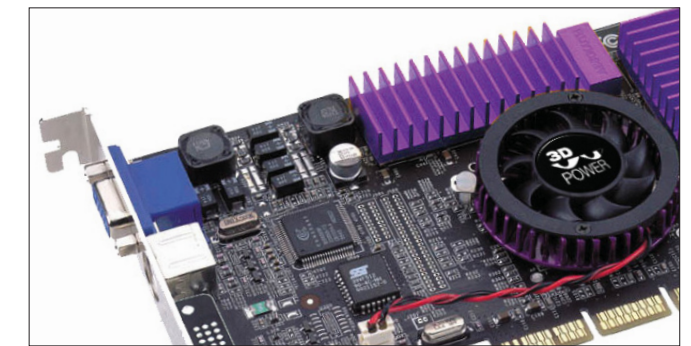


3DPower unveils GeForce 3 Titanium accelerator

3D graphics-card specialist 3DPower is the first off the block with NVIDIA's new GeForce 3 Titanium technology. It has produced a 3D graphics accelerator that boasts the fastest graphics processor unit – giving a 30 per cent performance boost over the first-generation of GeForce-powered cards. The NVIDIA-driven cards are popular with 3D artists looking for a low-cost solution to speeding up their animation and rendering work.

The card – called the Morpheus Titanium – comes with 64MB of RAM that can deliver 8GB/s of memory bandwidth. The technology breaks through the memory bottleneck that affected the previous generation, says 3DPower.

Other features include a high-resolution anti-aliasing feature (HRAA), which will ensure better 3D resolution. The card can even be used to link up to a television – ideal for testing models that are being created for next-generation games consoles.



The Morpheus Titanium includes access to special effects via the Vertex Shader and Pixel Shader technology in NVIDIA's nFiniteFX engine. The nFiniteFX is part of Microsoft's DirectX 8.0 – and gives a massive quality boost to textures in 3D modelling packages. 3DPower says the technology gives an unprecedented lift to rendering quality.

The company says that additional features for 2D artists are included.

The card's Digital Vibrance Control provides crisp, bright 2D images on screen. The card is powered by a core clock running at 240MHz, giving an effective clock speed of 500MHz.

The card is for Windows only – though the NVIDIA technology should be heading to the Macintosh. It started shipping in October, and costs £349 plus VAT.

3DPower, www.3dpower.com



Pure rendering
ART's PCI card features eight raytracing processors for fast 3D renders.

Canon and Ricoh go for fabulous 4mp

Canon's latest digital SLR offers true professional functions; Ricoh's new compact model hits the 4mp mark.



Four gives users more

Despite the gulf in feature sets, both the Canon SLR EOS-1D and Ricoh's Caplio RR1 offer 4mp capture.

When it comes to megapixels, four seems to be the magic number this month with Canon and Ricoh both releasing 4mp models. Canon latest model is the 4.15mp digital SLR EOS-1D, which the company boasts has the world's fastest continuous shooting speed, while Ricoh has introduced a digital compact model that reaches the 4mp bar – the Caplio RR1.

The EOS-1D, a SLR digital still camera with interchangeable lenses, allows photographers to shoot eight frames per second for up to 21 consecutive frames at the highest resolution large/fine mode. In comparison, its predecessor, the EOS-D2000, had a continuous shooting speed of just 3.5 frames per second.

While a digital still camera takes longer to release a shutter than a film camera does, the new EOS model gets closer to the performance of a film SLR camera by narrowing the shutter release lag time to 0.55 seconds and also featuring a blackout time of 0.87 seconds, according to Canon.

Images are captured on a 4.15 million-pixel CCD and stored in JPEG format. In the highest-resolution mode – 2,464-x-1,648 pixels – image size is 2.4MB. A 128MB Compact Flash card can hold up to 53 images at this resolution.

The camera is equipped with an IEEE 1394 (FireWire) interface to download images quickly to Mac OS and Windows PCs. Canon will roll out

the EOS-1D camera in early December for £5,499.99 including VAT.

Ricoh's Caplio RR1 captures images on a 1/1.8-inch 4.13mp (3.95 effective) CCD at full resolution at 2,272-x-1,704 to JPEG or TIFF-YUV DCF (Design rule for camera file system) format. It can also capture at resolutions of 1,120-x-840 and 640-x-480. The RR1 is capable of capturing video at 288-x-216 in AVI using the Open DML Motion-JPEG codec and up to ten seconds of audio annotations per image in WAV format.

The camera's F:2.6-3.4 lens has a 3x optical zoom facility (equivalent to 35 to 105mm on a 35mm camera), backed up with a 3.6x digital zoom. Other features include a multi-angle 2-inch TFT LCD

screen and a dual shutter so the camera can be used horizontally or vertically – with a second shutter release button for vertical shooting. The camera also boasts 0.8 seconds-per-frame continuous shooting, a manual focusing capability, exposure compensation, three adjustable flash settings and manual white balancing. Auto bracketed exposure is possible, as well as manually set exposures of up to eight seconds.

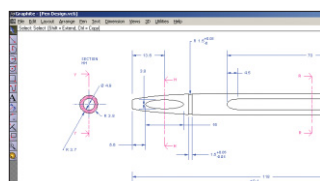
The Caplio RR1 costs £749.99 including VAT and ships with MGI Photosuite editing tools.

Canon, 0800 616 417

www.canon.co.uk

Ricoh, www.ricoh.com

Johnsons Photopia, 01782 753 322



Ashlar-Vellum has unveiled a 3D drafting tool called Graphite – the first product in the company's new Designer Elements family of CAD and 3D modelling software. Designed to make drafting faster and more productive, Graphite includes new features such as a navigator palette that lets users click through multiple sheets and layers, a spell-checker and a preview symbol panel with access to over 30,000 CAD symbols. Graphite costs £695 plus VAT. Ashlar-Vellum www.vellum.co.uk 01954 267 711



SplutterFish claim advanced rendering for 3DS Max



Discreet 3DS Max users will soon be available to take advantage of a new rendering suite that claims to offer high levels of functionality and control without the steep learning curve associated with traditional rendering software.

SplutterFish has announced US pricing (UK pricing to be confirmed) and availability for Brazil Rendering System 1.0, a fully integrated rendering suite for Discreet 3DS Max, and Autodesk's visualization tool, 3D Studio VIZ.

Slated for release in early November,



Brazil offers, says SplutterFish, a powerful rendering architecture, advanced shaders such as chrome, velvet, dispersive glass, and illumination models, natural controllable workflow features, realistic lens and camera modelling and motion blur. It also features full support for native and third-party plug-ins that run within 3DS Max.

SplutterFish will offer an Artist Bundle that includes one Brazil r/s workstation licence and two rendering slave licences for \$1,500. It also offers a Renderfarm



Bundle which includes four render slaves for \$1,000. Licensing is per computer, and covers a computer with up to four CPUs. A student licensing policy is being finalized, says the company, and once complete will be announced at the SplutterFish Web site.

Until December 31, 2001, SplutterFish is offering an introductory offer price for the Artist Bundle of \$1,200, and the Renderfarm Bundle for \$750.

SplutterFish, www.splutterfish.com



Eizo upgrades CRT monitors

Trio of new FlexScan CRTs offer sharp picture quality, USB hubs and dual inputs.



Eizo has introduced three new models to its line-up of FlexScan flat-faced aperture-grill CRT monitors. The new 17-inch T565 will replace the current T561 model; the 19-inch T765 replaces the T761 and the 21-inch T965 replacing the T962.

The top-of-the-range FlexScan T965 features a dot pitch of 0.24mm, scanning ranges of 30-130KHz horizontal and 50-160Hz vertical, and a maximum resolution of 2,048-x-1,536 at 80Hz. Additionally, dual inputs (D-Sub and BNC) allow for two computers to be connected to the monitor with toggling between them made possible with front button support.

Another button on the front panel controls the monitor modes offered by Eizo's Fine Contrast feature. This allows users to quickly optimize the screen settings of brightness, contrast and colour temperature for any application. Fine contrast also includes an sRGB mode for colour management with software and other peripheral devices that also support the sRGB colour space. The T965 comes with a USB hub with one upstream and four downstream ports.

The 19-inch FlexScan T765 has a dot pitch of 0.24mm in the centre and 0.25mm at the edges. Eizo's recommended resolution is 1,280-x-1,024 at a maximum refresh rate of 107Hz – for

detailed text and graphics work a maximum resolution of 1,600-x-1,200 at 92Hz is possible. Like its bigger sibling, it includes dual inputs, a front-button operated Fine Contrast customization function, and USB hub.

The 17-inch model – the FlexScan T565 – shares the same features apart from a dot pitch of 0.25mm and a maximum resolution of 1,600-x-1,200 at a refresh rate of 76Hz.

Prices for the three FlexScan CRT are as follows: the T565 costs £299 plus VAT, the T765 £509 plus VAT, and the T965 £659 plus VAT.

Eizo, www.eizo.co.uk
01483 719 520



Sony readies pricey PC entertainment system

Sony Electronics hopes to shake off the downturn in the IT market and lure technophiles to an pricey new all-in-one PC and multimedia entertainment system.

The Sony VAIO (Video Audio Integrated Operation) MX combines an assortment of media gadgets – including a TV, radio, video recorder, MiniDisc and CD and DVD players and recorders – with a full-featured, Pentium 4-powered desktop PC. But consolidation doesn't come cheap: the VAIO MX is priced at around £2,000, monitor not included. Users can attach either a monitor or a TV as a display.

Sony's target audience for the VAIO MX is young early adopters – 25-to-35-year-olds who are tech-oriented and on the cutting edge, says the company.

According to Sony, the VAIO MX could also appeal to advertising agencies and other corporate users who require robust



multimedia systems for presentations, and to home office workers who can take advantage of the device's entertainment features while writing it off on their taxes as a business PC.

The VAIO MX will be available starting though Sony's Web site. The machine comes with 512MB of RAM, an 80GB hard drive and an Intel Pentium 4 1.7GHz

processor. The VAIO MX's operating system is Windows XP Home edition and software bundled with the device includes Adobe Photoshop Elements, Corel WordPerfect, Quicken 2002, and an assortment of Sony tools for video and still-image editing.

Sony Electronics, 001 800 222 7669
www.sel.sony.com



HOT STUFF

Toast for OS X hits preview 2

Roxio has announced Toast 5 Titanium for Mac OS X 10.1, Preview 2. The free upgrade is the second release for the next-generation Macintosh operating system and can be downloaded from Roxio's Web site. Not all of the advanced features of Toast 5 Titanium have been ported to Mac OS X. However, the new Preview version now lets users record video CDs with automatic MPEG1 encoding, plus record data and video to DVDs. Roxio, www.roxio.com

Microsoft XP Plus announced

Voice control for Windows Media Player and 3D screen savers are two of the functions that will be included in Microsoft's Plus for XP software – scheduled to ship with Windows XP. The new version of the Plus package includes a number of enhancements that are aimed at adding a little more enjoyment, rather than productivity, to the system. Microsoft, www.microsoft.com

Real mixes Player, Jukebox

RealNetworks is melding its RealPlayer and RealJukebox into a new product dubbed RealOne. The standalone RealPlayer will no longer exist after the fusion. RealOne adds media player RealJukebox and the GoldPass subscription service. Users can still use RealOne as a media player only, without paying. RealNetworks, www.real.com

Wacom goes for X

Wacom has releases Mac OS X 10.1 beta drivers for its range of graphics tablets. Available for download from Europe's Web site are an installer, driver, and control panel. The new driver will support native and classic applications – but requires Mac OS X 10.1. It works with older Wacom USB tablets, the PL-400, PL-500, and Intuos products – as well as its new Graphire2, Intuos2 and Cintiq tablets. Wacom, wacom-europe.com

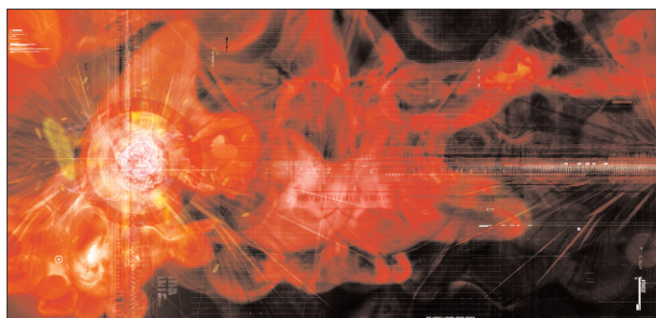




Layer it on with Digital Vision

People who work with stock images often complain that they don't allow for enough tweaking and editing – and Digital Vision has addressed this issue with the release of the new royalty-free *Infinity* abstract digital art collection – the first such collection to feature Adobe Photoshop layers.

The company employed well-known designers such as Rod Steele, James Widegren and Jens Karlsson to produce a total of 17 CDs containing 500 images. Each image has between three and 50 layers, meaning that thousands of potential images are available from each CD, says the company. Each CD costs £549 plus VAT. Digital Vision, www.digitalvisiononline.co.uk, 020 7378 5555



Hemera thinks outside the box

Hemera has released *The Big Box of Art* for Macintosh and Windows, a wide-ranging collection containing a whopping 200,000-plus royalty-free images including Hemera's Photo-Objects and PhotoFont textures, vector clip-art, raster illustrations, Web graphics, professional colour and B&W photographs, textures, and animations.

A search engine is included, as is a catalogue for the Mac version.

The Windows version of *The Big Box of Art* costs £29.95 including VAT; the Mac version costs £59.95 including VAT. Hemera, www.hemera.com
Koch Distribution, 01256 707 767
Software Paradise,
www.softwareparadise.co.uk

In the garden

The rights-managed Garden Picture Library has added a new feature to its Web site: photographer portfolios. Geared for both commissioning and straight image purchases, the profile pages feature the work of more than 20 photographers, all of whom produce striking and beautiful images of gardens and plants.

All images on the Web site are available as low- and high-resolution files, or as 35mm transparencies. Price depends on size and usage. Garden Picture Library, www.gardenpicture.com





ImageState launches new titles

ImageState has launched 37 new royalty-free CDs. Featuring between 60 and 120 super-high resolution 60MB images per disc, the new additions to the collection cover the gamut of people and lifestyles, concepts, beauty, travel, and sport. It also includes digital composites.

Each super-high resolution CD costs £280 plus VAT, with the regular 30MB high-resolution CDs priced at £220 to £250. It's also possible to buy individual images from 1MB to 60MB in size from £35 to £160.

ImageState, www.imagestate.co.uk, 020 7734 7344

NEW FACES

AtomicType is distributing fonts from Fountain, a foundry based in Malmö, Sweden. A total of 17 fonts are available, each featuring a number of weights.

Shown below are the Pump-like CloseOGRA (£69 plus VAT), the subdued

and businesslike Malmo Sans (£89 plus VAT), and the futuristic Robotron (£99 plus VAT). Other fonts are priced between £35 and £99 plus VAT.

AtomicType, www.atomictype.co.uk
01403 249 245

ABCDEFGHIJKLMNOPQRSTUVWXYZ

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di@log box



Star Letter

Dramatic DVD disaster

It started when I got my hands on a PlayStation 2 – I already had a DVD player, but here was a consumer product that would really bring DVD to the masses instead of the living rooms of technofetish fanboys. And while the games have been awful by and large, people I talk to are using it mainly as a DVD player. It was time, I thought, to get into DVD production in a big way – my background is in DV and multimedia.

Only it's a minefield out there. I know software is expensive, but paying tens of thousands of pounds for DVD authoring kit is taking the piss. It is, after all, just another format, and video-editing software has tumbled. Even *Digit*, I note, gives DV software away on your excellent cover CD just for the pure hell of it. So why does DVD kit cost so much? And why, if I want to create on a Mac, do I have to buy a new G4?

Admittedly, Apple has done more than anyone to bring DVD authoring to the masses – witness its iDVD product which is actually brilliant for 60 per cent of uses. But if you want to do more – subtitles, advanced audio, and so on – you're left in the cold.

This is coupled with the increasingly confusing market of DVD formats. Separating DVD-RW, DVD+RW, DVD-R, and DVD-RAM from each other presents just another obstacle. I thought a technology like DVD authoring was supposed to be liberating. It seems a money-squeezing exercise from Joe Public.

Lawrence Peterson

Don't give up, Lawrence. DVD tools (and media) are falling in price, and external DVD burners are hitting the mainstream. We'll keep you educated right here!

Software piracy, part one

In relation to Matthew's column in *Digit* #40, I was a session musician until I left the business when I bought my first computer. Armed as I am with a legitimate copy of Cubase, I have no intention of justifying piracy, but your argument has many flaws. In my early Atari days, I started with a cracked copy, but soon moved to a PC and a proper copy of VST 3.7.

So software companies are getting ripped off – do you think the customer isn't? When they bring out v3.4.2.1, it is frequently followed months later with v3.4.2.2. The difference? They have discovered that the earlier version had bugs in it. We are expected to pay for an upgrade to correct their mistakes. How would it be if car manufacturers did the same?

Regarding the piracy of books: am I being naive to think that the downloading of literature will never catch on? Didn't someone start to publish a book on the Web, and wasn't it a dismal failure? Where do you read a book. In bed? Cuddled up in an armchair? Not one of those places is really suitable for a computer!

Eddie Gray

Software piracy, part two

I've got a message for Matthew's opinion in *Digit* #40. You're wrong. There is no such thing as a fortified PDF. Dimitry was pointing that out. His company did the work in Russia where it broke no laws. But he was arrested in the US. I guess people arrested for teaching Christianity in a Muslim countries should be viewed as criminals?

The software Dimitry produced had useful purposes. A big customer of this product was the FBI. Do you suppose they were ripping off ebooks? No. Since they were using this product for good, how can the product itself be illegal? Owning a product that could be used to do harm does not mean you *will* do harm.

I think piracy would end if the true cost of publishing was applied to media instead of yesterday's publishing costs. Imagine who would copy a book if it cost a pound? Publishing across the Internet is near free. The audience size would go up so much the smaller cost would be negated. Consumers have been fooled into believing the ebook costs are based on yesterday's price. I like your magazine. I disagree with your views here.

Larry Johnson

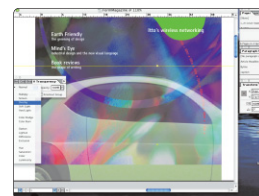
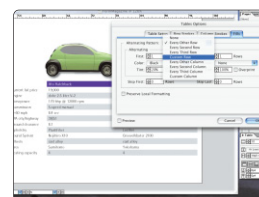
The piracy debate rumbles on. My point was that nicking PDF books is pathetic for precisely the reason raised by Eddie. However, publishing information involves costs – Digit's Web site includes news gathering costs, staff costs, and bandwidth charges. While it's free to view, it doesn't make it right to simply steal and republish elsewhere. The 'information wants to be free' mantra is fine, but content creators deserve to be paid.

Finding Web tips

I have a slight complaint with regards your Web site. The tips section of the Web site is a very good source for tips on using applications, but you have to find them first! It gets tiresome going through numerous pages to get information, say on Photoshop, but then I may have to go through a 100 pages to find them. Wouldn't it be simpler to have a menu system based on the application the tip relates to? You select the application and it calls up the tips! Come on *Digit*, I expect a bit more from you!

Adrian King

At the top of the tips section there is a pulldown menu that lists application and technology areas, which you can use to call up specific tips. And if that doesn't work, on the results page is a complete tips search engine. Enter a topic, application, or question and away you go!



InDesign 2.0 rules

It's nice to see Adobe not just updating its DTP software, but also porting it to Mac OS X (and Windows XP, to be fair). After hating version 1.0 due to crap restrictions on printing, and being disappointed with the 1.5 upgrade, version 2.0 does look like it shows promise. Tables really are a bonus, but the transparency tools really had me drooling. Quark is going to really have to work hard to stop me defecting to Adobe, and I doubt they're up for it.

Reg Morance

Building a 3D home

I am writing to you with a plea for help. Please publish a list of 3D animation houses in the UK or even just London. I am desperate for an overall look at what is going on both in terms of the tools being used and the content created. If such a list exists, please share!

Shiraz Pe-er

Sounds a good idea - would other readers want to include a list of other companies, such as video, Web, or design studios? Let us know.

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- | | | |
|---|--|--|
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|  Fantastic package, almost perfect |  Average |  Lacks any redeeming features |
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Online review

Digit Online (www.digitmag.co.uk) for all your review needs, with exclusive reviews constantly updated.

Illustrator 10

This is an all-round excellent collection of new tools and functions with some powerful workflow improvements. Impressive.

Format



Price

£329; upgrade £115
prices plus VAT

Company

Adobe
www.adobe.co.uk

Contact

Adobe
020 8606 4000

Digit rating



The latest version of Adobe's heavyweight vector-graphics creation package, Illustrator 10, promises much and delivers more. The release is a wide-ranging spread of new and improved functionality, and includes powerful new tools, palettes, and graphics effects – and as such, it deserves a rousing welcome from print and Web designers alike.

As with most Adobe software originally developed for the print-design community, Illustrator is gradually picking up more Web-enabled features. Version 10 is the most Web-savvy version yet: features such as the Variables palette and support for live Scalable Vector Graphics (SVG) effects are powerful weapons to tempt Web designers away from the rival vector-graphics package, Macromedia FreeHand 10. Interestingly for Macintosh users, Illustrator 10 is Adobe's first major software release to run under Mac OS X, but it can also be run under OS 9.1 and 9.2 (it's not compatible with 8.x versions). Illustrator 10 is also the first major Adobe release to run under Windows XP, although it doesn't use the new XP user interface.

The right compartment

There's a general tendency among Web software developers at present to 'compartmentalize' workflows: to provide tools that allow designers to design, database programmers to program, content managers to manage content, and so on. Illustrator 10's Variables palette follows this trend by 'separating the design of a Web site from its content', according to Adobe. What that means, in plain terms, is that it links artwork to a database, allowing the database to update the artwork on the fly.

Here's how it works: when the artwork is created, the designer uses the Variables palette to nominate particular placeholder elements (text, graphics, logos, photos, and so on) as variables. Those variables are

then linked to fields in any ODBC-compliant database. From there, it's a case of either writing a script that replaces each variable with live data from the database (Illustrator comes with some basic sample scripts that can be used as is or modified), or using a dynamic image server such as Adobe's own AlterCast.

Goodbye to tedium

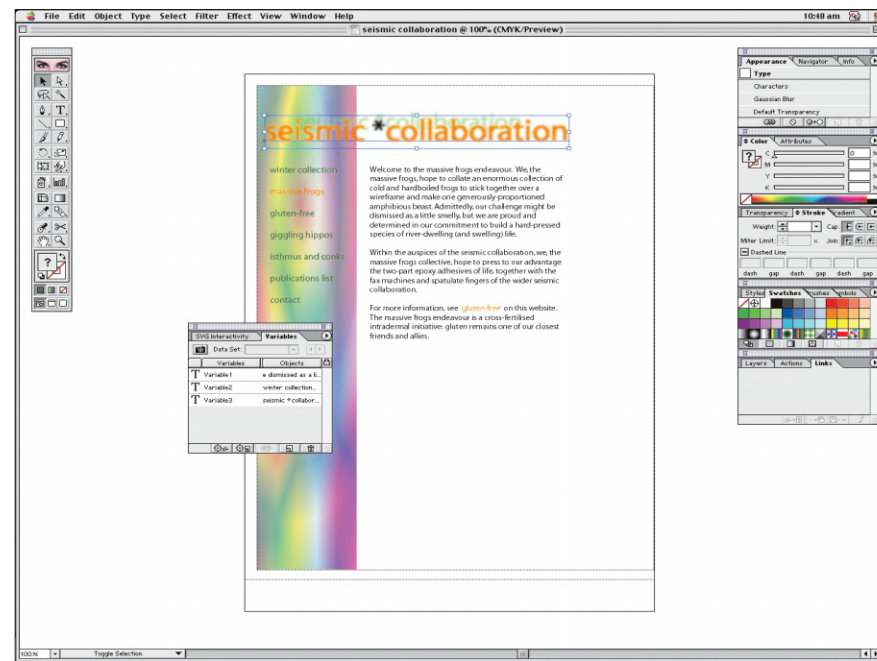
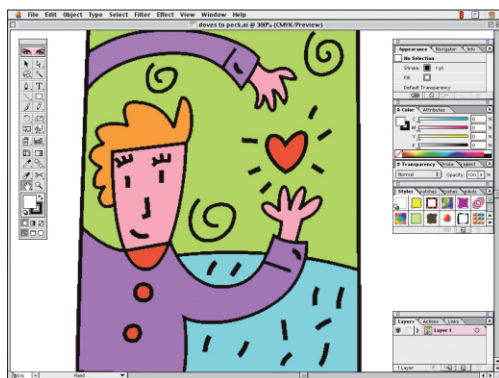
The significance of the Variables palette isn't to be underestimated: the automatic workflow it offers can free designers from all kinds of necessary but tedious tasks: creating tens of buttons containing the word 'products' in every language from English to Swahili, for example. It's possible to preview the updating and the data itself using mock data sets via the Preview in Browser plug-in – which is useful for client approvals before final graphics are generated.

Also on the score of compartmentalizing the design and production process, Adobe has boosted its SVG format support in Illustrator 10. SVG files from any SVG editor can now be imported with their code intact and it's now possible to save a copy of the original Illustrator file with the saved-out SVG file. Both these features allow designers to alter the graphic without affecting the code – useful in a segregated workflow.

Some of the new features in Illustrator 10 are a catch-up with FreeHand: it's hard to avoid the observation that the new Symbols feature and symbolism tools are an almost exact duplication of FreeHand's Symbols and Library. The great glory of symbols, from a Web designer's point of view, is the automatic conversion of all Illustrator symbols to Flash symbols during SWF export: this makes them compatible with Flash's symbol library and keeps file sizes low by rendering multiple instances of symbols, rather than a series of unique objects.

In the sophistication and variety of its symbolism tools, Illustrator goes further than FreeHand. The symbolism toolset, to be found in the toolbox under an icon reminiscent of Photoshop's old Dodge/Burn tool, includes seven tools all named with the alliterative 'S', including Sprayer, Scruncher, Stainer, Styler, Screener and Shifter. Screener, Styler and Stainer deliver raster-like painting abilities despite being in a vector-graphics environment.

Some tools, like Shifter and Spinner, can be nudged and set to deliver slightly modified variations on the individual symbol, which is extremely helpful when creating massed graphics such as organic forms. It's hard to remember that the symbolism tools don't allow selection – you have to skip between the direct



Use the Variables palette to specify areas of artwork linked to cells in a database for automatic updating.

selection tool and the symbolism tools – but it's easier with practice.

It's about time Illustrator included slicing tools: in this respect, it's lagged behind Adobe's bitmap editor, Photoshop/ImageReady, for a while. The new slicing tools, added to the bottom of the Toolbox, work in two ways. Slices can either be made from objects, groups or layers, and these are automatically updated as the design changes or by using an alternative set of manual slicing tools for customized slice sizes and positions.

Using the manual tools, it's possible to slice a single object, or the contents of a layer, into multiple slices, which is useful for larger images delivered to a browser in separate chunks. In a future version of Illustrator, it would be useful to take this new toolset to its logical conclusion and include a semi-automatic slice tool, with which manually defined slices could be updated automatically.

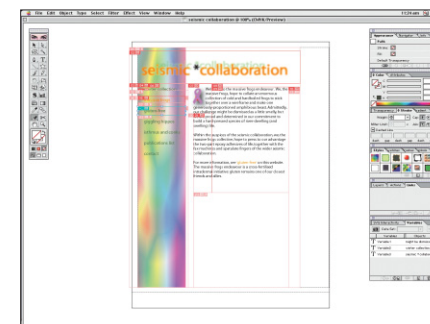
One nice touch is the follow-through of slicing tools to the Save for Web dialog box, in which it's possible to

select different formats and compression options for each slice: GIF for logos, JPEG for photos, HTML for text, PNG for transparent images, and Adobe's own SVG standard and the SWF (Flash) formats for vector-based graphics: again, this is a catch-up with FreeHand, but welcome nonetheless.

There's a big boost to graphics-effects creation in Illustrator 10. Many of the new effects tools are direct steals from Photoshop, ported into a vector-graphics environment. Initially it feels odd using tools like, Flare – they produce effects that don't look as if they belong in a vector environment – but it's much easier with tools like these to create complex-looking graphics that remain easily editable.

Contort and distort

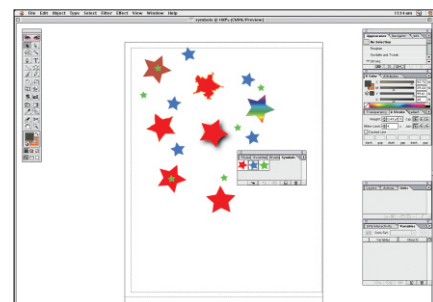
Illustrator 10 includes a whole raft of new live distortion effects, including some text/graphics warping commands. Found under the Effect/Warp menu, these include Flag, Fish, Inflate, Squeeze, Wave, and Bulge. →



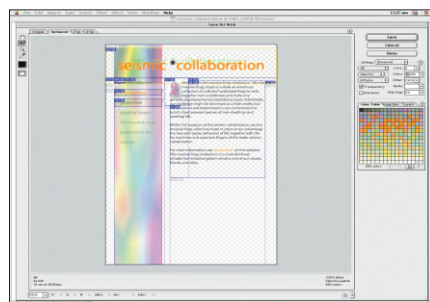
The new slicing tools in Illustrator: red lines note the user-defined slices; pink lines show the sections generated automatically.

Features

- Graphics can be updated dynamically using new Variables palette.
- Support for live SVG effects.
- Live distortion tools including warp effects and envelopes.
- Symbols for repeating graphics and automatic updating.
- Slicing tools for Web images now integrated.



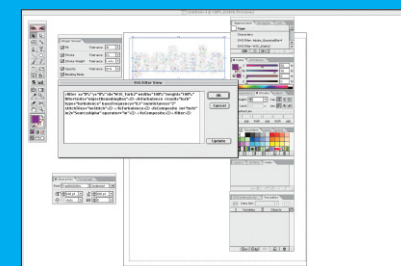
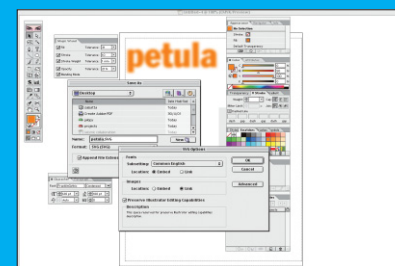
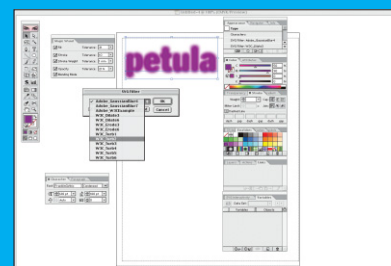
Symbols can now be created, styled and updated using the Symbols palette and symbolism tools.



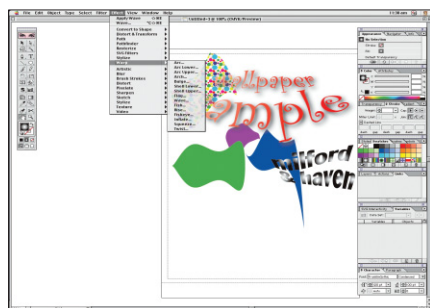
The Save for Web dialog lets each slice be saved in a different format with optimum compression applied.



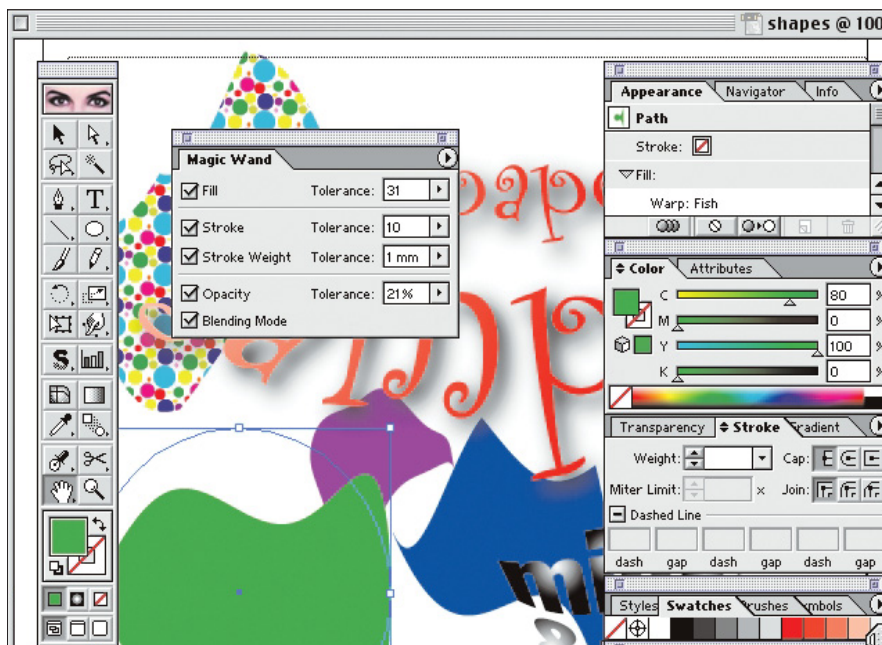
Walkthrough · Applying SVG effects to vector graphics in Illustrator 10



Using the live SVG effects capability in Illustrator 10 you can produce great-looking vector-based graphics with bitmap-like effects – blurs, dilates, erodes and turbulence – that are applied by the browser as the graphic is delivered. First, an SVG effect is applied to the graphic: here, a Gaussian blur. Then the graphic is saved in SVG format, with images linked rather than embedded so that graphics can be located separately. Users can also modify the scripts for SVG effects using the 'Advanced' facility.



Shapes and text – with or without patterns and styles applied – can be distorted using Illustrator's new Warp effects function and text remains editable.



The new Magic Wand tool, lifted and improved from Adobe Photoshop, can select on user-defined tolerances of stroke, stroke weight, fill and opacity.

(Annoyingly, the sub-menu for these new effects isn't in alphabetical order, which makes it harder to find the one you're looking for.) The Object menu now houses a new Envelope Distort command – this can be used as a standalone tool to distort objects along a path used as an envelope, or in conjunction with the new Warp tools, where a Warp tool is applied to an object as an envelope and the envelope path tweaked.

There's also a new Flare tool, similar to the Lens Flare filter in Photoshop but more sophisticated, with user-definable settings for Halo, Ray, and Rings settings. And finally, again drawing on Photoshop, there's a set of new Liquifying tools in Illustrator. These include Wrinkle, Pucker, Twirl, Scallop and Bloat, and use a brush interface, which is generally easier to use for locally-applied effects than a dialog box.

Effects on demand

Another effects-based upgrade in Illustrator 10 is the addition of live SVG effects. Because SVG effects are added only at the time of viewing by a browser, they allow the graphic to remain scalable but with the addition of effects such as drop shadows and blurs, previously achievable only on pre-rasterized artwork. It's also possible to combine live SVG effects with dynamically-variable data from a database via the Variables palette. Placeholder graphics or text can have a live SVG effect applied, which is then applied to the actual graphic or text automatically as it's pulled in from the database.

One final fillip is the ability to edit the basic SVG effects included with Illustrator 10, or to write custom effects of your own. Interestingly, at the time of writing, version 3.0 of the SVG plug-in was in beta test, but its specifications made no mention of support for live SVG effects.

Another good tool copied from Photoshop is the Magic Wand tool. Used to select objects, it's given a big performance boost in Illustrator 10, taking advantage

of the vector-based environment. It's able to select objects with similar fill colours, strokes, stroke weights and opacities (tolerances can be set for all of these). It's a shame this extra sophistication probably won't find its way back into Photoshop, as it's hard to see how it could work in a bitmap environment. In Illustrator, the Magic Wand is backed up with a new Selection menu for quick-&-easy object selection.

Smooth update

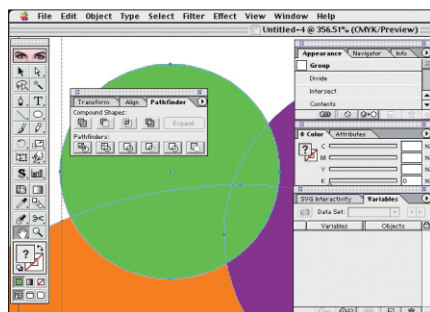
There's also a handful of less-significant new features in this upgrade. Four new drawing tools for faster creation of lines, arcs, grids and polar grids feature, as does support for WebDAV server file management and control over text rasterizing using the new rasterize live effect. An option for creating a PDF-compatible file while Saving is toggle-able – when toggled off it speeds up saving and opening.

The new version features a Flatten Preview with slider control that previews transparency, conversion to outlines and overprint and there's full support for scripting using JavaScript, AppleScript or Windows Visual Basic, supported by a 400-page Scripting Guide.

Last but not least, a way-overdue updated Pathfinder palette with (at last) more intuitive options is included – and the Pathfinder's new improved Add, Subtract, Intersect and Exclude options preserve the editability of individual shapes despite having combined them – until the object is flattened using the Expand button.

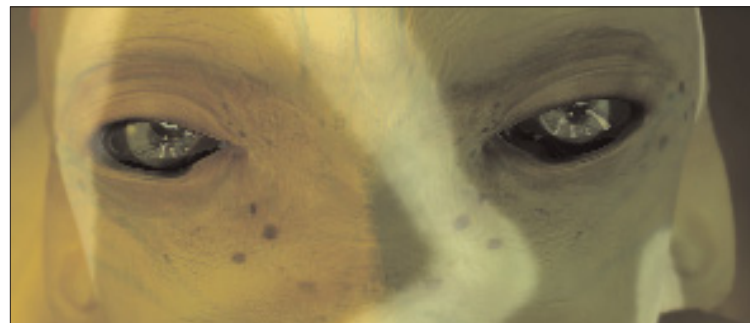
Illustrator 10 comes with the by-now standard blurb from Adobe about tighter integration between all its packages, and there's no doubt that in terms of interface and some of the overlap functionality, it's true. Furthermore Adobe has promised that native Illustrator 10 files will retain transparency and live effects for editing directly with the Pen tool in the forthcoming InDesign 2.0.

Karen Charlesworth



The new Pathfinder palette preserves the editability of all individual shapes in a group until the Expand button is clicked to flatten them.

XSI 2.0



The XSI that users have been waiting for – an ultra-capable, slick and polished performer that firmly puts Softimage back on top.

Format



Price

£5,500 (essentials),
£8,200 (advanced)
prices plus VAT

Company

Softimage
softimage.com

Contact

Tyrell
020 7343 5500

Digit rating



Softimage's next-generation 3D package, XSI, has had a difficult birth in the highly charged high-end 3D marketplace. Version 1.0 was late and missed essential features like polygon modelling. In fact, it was missing so much that Avid was forced to give away a full version of Softimage3D to paper over the cracks. Version 1.5 added the polygon modelling and smoothed over some of the workflow problems, and now we have version 2.0 (at least in early-release form), which is looking very slick indeed.

The SoftimageDS compositing application has traditionally been partnered with XSI, but now version 2.0 of XSI has its own compositing application built directly into the interface. The new compositor is based on the Avid Illusion compositing engine, and works on a node-based metaphor, similar to XSI's own RenderTree method. The compositor ships with 65 film-quality effects that can be applied at 8- or 16-bit or even at float precision. This addition will be a real boon to animators, since it avoids the hassle of switching applications – everything can be done from the same seat, and previously tedious-but-necessary operations like multi-pass renders can be managed from within the application easily.

A front end that suits

The interface remains extremely customizable, and different layouts can be saved and recalled for different stages of the production pipeline. Also, Proxy pages are user-defined parameter sheets that can be tailored to contain sliders relevant to parameters of the job in hand. This saves the trouble of having to dig down through an object's explorer in order to edit the desired values. The new Synoptic view also allows users and technical directors to create customizable, HTML-based interfaces with embedded links. A character's

representation (which is just a bitmap) in the Synoptic view can have scripts that are linked to representations of the result of the script (bend elbow, and lift knee, for example). Choosing the appropriate pose from the Synoptic view executes a script that triggers the relevant response in the model in the workspace.

The Proportional Guide is another new feature in version 2.0 that will ease animators' lives by making character skeleton setup much easier. Softimage's products have always included ready-made character skeletons of varying complexity, but the Guide is a high-quality skeleton rig – even including properly-defined lumbar movement – that animators can adapt and mold to their own ends. Once the rig is positioned inside the character's mesh, the click of a button turns it into a fully operational, bound skeleton with all effectors in place. At present it's only available for bipedal characters, but a quadruped is coming.

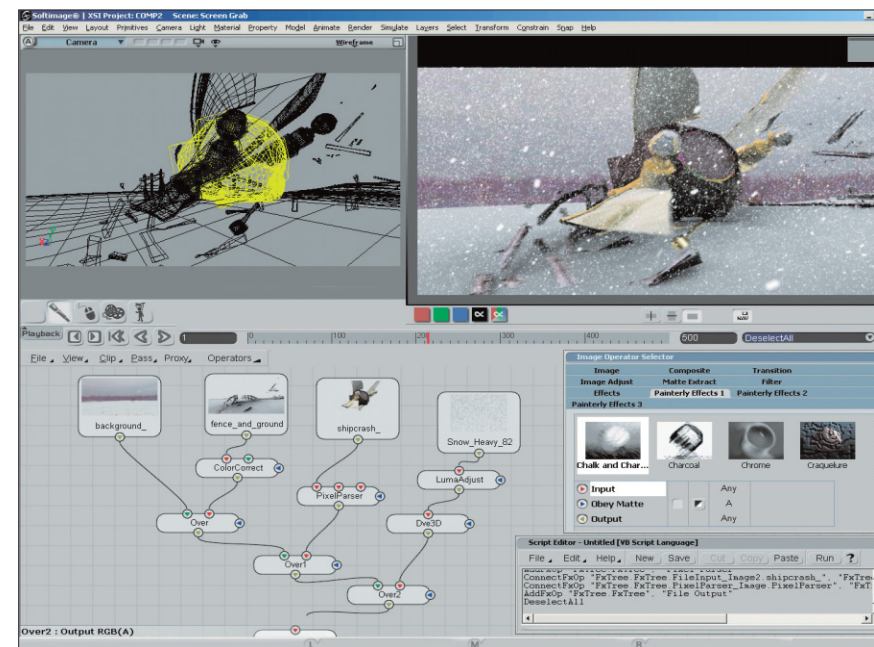
The other great workflow enhancer in XSI is NetView. This is essentially Internet Explorer running in a window inside XSI. It gives easy access to model libraries, walk cycles, textures and the like from Softimage's own Web site. Version 2.0 also has a plug-in for searching the excellent TurboSquid 3D site, currently the best 3D repository around.

Subdivide and conquer

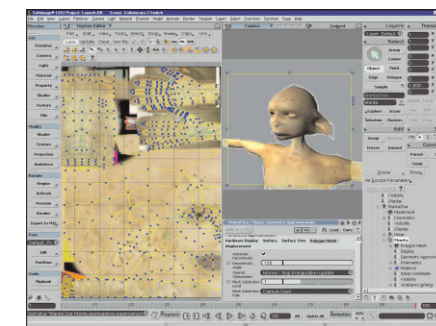
XSI 2.0's polygon modelling makes full use of Subdivision Surfaces. This is a method of deriving smooth, organic objects from blocky, polygonal cages. It's very much *de rigueur* at the moment, and XSI's implementation is about the best there is. Two methods of subdivision algorithm are provided, Catmull-Clark and Doo-Sabin, and different levels of subdivision can be set locally on an object's surface. This highlights one of the great features of Subdivision in XSI: you're not limited to triangular or quad patches in a model, which increases creativity and productivity considerably.

The modelling workflow is excellent, and puts the rather lacklustre implementation of Subdivision surfaces in Maya to shame. For example, selections made at different pick levels (face, edge, vertex) remain live: change the pick level, and the last selection made is still highlighted for you. Also, symmetry modelling is back, where changes made on one side of a model are immediately reflected over to the other side.

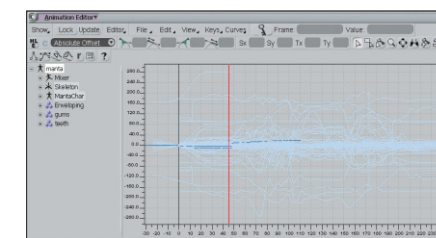
Weight painting is a very accessible way of modulating the effects of bones on a character's mesh and version 2.0 has added a dedicated Weight Painting toolbar. The effects of a Weight map are now shown directly in the interface, with the map colour corresponding to the bone's default colour. The sphere



While not having all the bells and whistles of a dedicated system, the compositor in Softimage XSI 2.0 is perfectly capable of producing film-quality output.



XSI 2.0's texture-editing tools are supremely easy to use, with sub-projections allowing easy alignment.



XSI 2.0 includes all of the cool tools from previous versions, including the animation editor.

of influence for a particular bone can be adjusted by simply painting on (or erasing) its influence colour in the workspace. The model mesh will update in real time as the influences on it vary.

Hair apparent

Also getting its own share of the workspace in version 2.0 is simulation. It's tightly integrated into the application, or at least it is in the Advanced version. The Fur and Hair simulation has received a lot of attention, and Softimage's engineers have found a way of relating hair characteristics to texture maps: The controlling effect of a texture map can be applied along the length of an individual strand so, for example, a character's hair can be straight near the scalp, and get progressively frizzier along its length.

XSI's texture placement tools have also had an overhaul for version 2.0. Mapping textures around complex geometry is always a chore, but XSI has tools to make the job relatively easy. Sub-projections allow areas of a character's mesh to be detached, dragged

and scaled to fit over the relevant part of a texture map sheet, as before. However, a new 'Heal' tool has been added to eliminate the dreaded seam problem. This intelligently matches up vertices that were separated in the original phases of texture-map assignment, automatically eliminating seams.

Version 2.0 adds the ability to assign multiple UV projections on the same piece of geometry, allowing coincident texture layers to have differing mapping directions. Another texture-based enhancement is the ability to hook directly into the pixel shaders on some graphics cards, which gives full hardware rendering of textures and transparency effects.

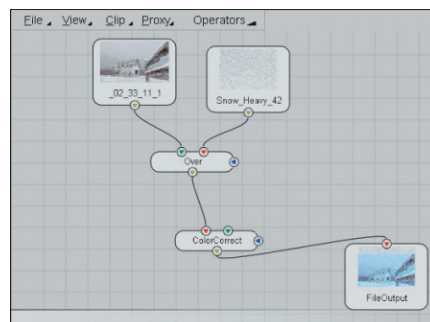
XSI is still shipping in two versions, Essentials and Advanced. Advanced adds support for particles, dynamics simulation, fur and hair rendering, and a two-CPU licence for the Mental Ray rendering engine.

Version 2.0 is also the first version to run under Linux – and the first to truly fulfil what we were hoping for from the long-awaited Sumatra.

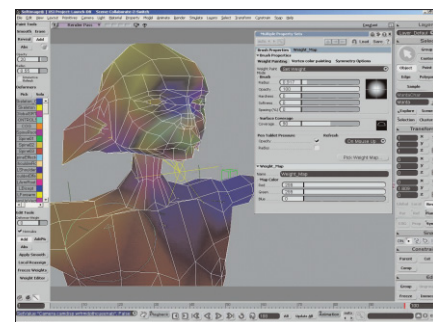
Michael Duke

Features

- Node-based compositing tool with 65 effects.
- Easier character skeleton setup.
- Synoptic view for creating extra HTML-based interfaces
- NetView for browsing Web-based assets.
- Subdivision surfaces with two methods and different local levels on objects.

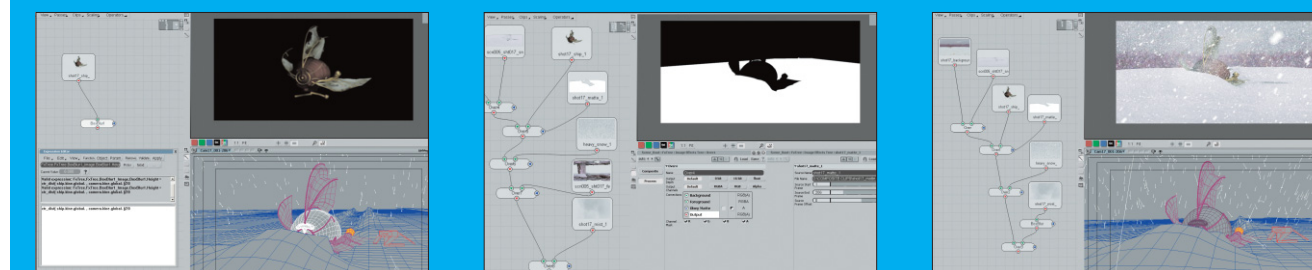


Creating composites in XSI uses the same node-based approach as the render tree.



XSI 2.0 allows interactive painting of weight maps to control bone influence.

Walkthrough • Compositing using Softimage XSI 2.0



Here we are creating an expression to link the blur of the ship pass to the ship's actual distance from the camera in 3D space. The tree is assembled with the matte selected for viewing and layout customization to allow property editors in the interface. When finished the composite is completed and viewed with a 3D viewport in hidden line removal view mode for reference.

KPT Effects

Not everyone's bag, but if ink spots and lightning bolts get your creative cylinders firing, then KPT Effects is a must-have purchase.

Format



Price
£149.99 inc VAT

Company
Procreate
procreate.com

Contact

Computers Unlimited
020 8358 5857

Digit rating



Features

- Nine filters that offer an array of effects.
- Export animation of liquid effects.
- Enhanced colour picker with numeric values.
- Dedicated effect interface.
- Variable-sized preview windows.



Procreate KPT Effects is a smorgasbord of creative plug-ins pitched at designers looking to push the pixel envelope of photographic effects. Nine Photoshop-compatible filters are combined to offer a varied bag of effects.

At first glance, KPT Effects is an uncomfortable mixture. Several of the filters pander to the experimental artist, creating fantastical flame designs or four-dimensional warps, while others deliver blur controls to the nth degree. The result is a collection of tools where some will be used daily while others, such as turning images into a smeary liquid, will only be deployed rarely.

KPT Effects is Procreate's upgrade to the immensely popular KPT Effects 6 – and has a cult following among Photoshop users. Historically, the package has been excellent at offering a collection of plug-ins that let designers create otherwise unobtainable effects, and that tradition has been carried over to this release to a large extent.

Bizarre tools include Fluid, Ink Dropper, and FraxFlame II. Fluid treats the image as if it's floating in a pool of liquid, letting designers smear and swirl the liquid and then watching as the image continues to organically distort. Ink Dropper is a variation on the theme, dripping splashes of ink onto the canvas. The result is as if ink was dropped into a pool of water, forming inky spots or curling smoke. FraxFlame II, on the other hand, uses complex mathematics to spawn fibrous strands.

At the other end of the scale are more useful tools such as Channel Surfing, Gradient Lab, and Lightning. Channel Surfing enhances blur, sharpen, and contrast effects – with designers able to assign them to

different channels such as hue and luminance. Gradient Lab provides a comprehensive array of controls for creating gradients and blends. Tools include multiple layers, mirroring, and directional options. Lightning is another straightforward filter, shooting plasma bolts across images. Designers can adjust the start position and attractor, govern age, bolt density, and so on.

Warp and sprinkle

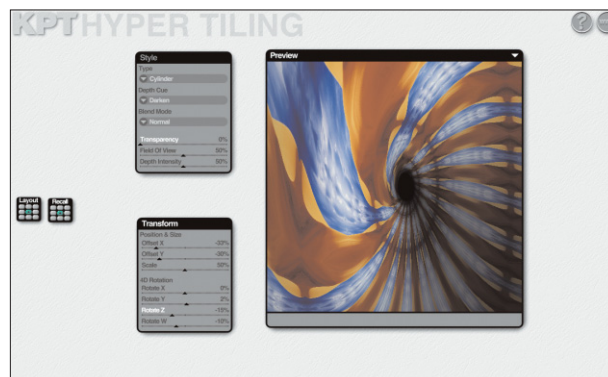
Finally, three general-purpose tools round out the collection; Hyper Tiling, Pyramid Paint, and Scatter. Hyper Tiling creates warped tiles, where the image is continually remapped as a tiled vortex, but with added controls for pseudo 3D effects. Pyramid Paint is impressive, transforming photos into painterly artwork, with lots of alternative effects possible. Scatter sprinkles object particles over the canvas according to defined particle properties.

KPT Effects does benefit from some engine tuning. An enhanced colour picker debuts, as does improved accuracy – most variables can be entered numerically rather than relying on imprecise sliders. Preferences can also be applied to all filters at once.

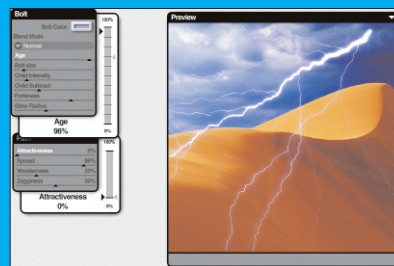
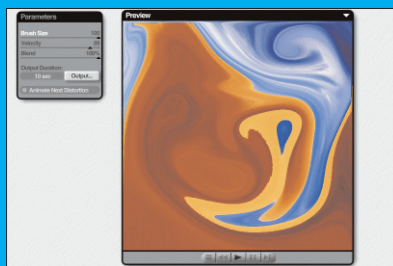
However, it can be as slow as a car with square wheels, even on a powerful workstation, and large preview windows just add to its lethargy. And while the Fluid filter can save animations, it can't do it in reverse for an image that forms from a chaotic swirl of liquid.

As with any collection, taste plays a part, and if you have a desire to create any of these effects on a regular basis, the entry cost is worth it. This is still somewhat from the seminal KPT Effect 5, but Procreate has produced a filter set that maintains its legacy.

Matthew Bath



Walkthrough · Headline filters in KPT Effects



With nine polished filters to choose from, it can be hard to pick a favourite. Ink Dropper (left) is impressive as it lets you drip ink as if from a pipette into a canvas soaking in water, while Fluid (middle) lets you swirl images as if they were made of liquid. Finally, Lightning (right) adds bolts of electricity across your artwork.

Intuos2

With stylish new looks and more input devices, these graphic tablets are serious tools for design professionals in any field. Simply superb.

Format



Price (all plus VAT)

A6	£139.99
A5	£255.99
A4 regular	£365.99
A4 oversize (CAD)	£369.99
A4 oversize (graphics)	£405.99
A3 (CAD)	£539.99
A3 (graphics)	£599.99

Company

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www.wacom-europe.com/uk/

Contact

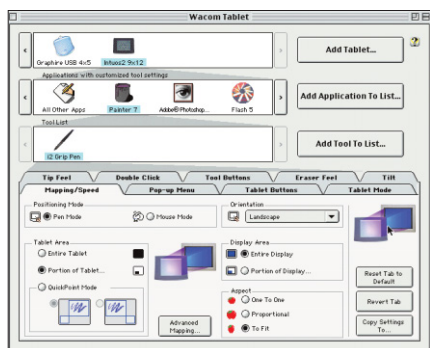
Computers Unlimited
 020 8358 5857

Digit rating



Features

- Intuos2 Grip Pen has wider rubberized grip for greater comfort.
- Redesigned Intuos2 4D Mouse offers more functionality.
- Eight optional input devices.
- New colour scheme.



Intuos2 offers greater control than ever before, with more buttons to configure and devices to customize.

As a long-term Wacom graphics tablet user, who's always found the pen mightier than the mouse even for general computer usage, I was more than a bit keen to see just how the company could improve the technology with its latest range.

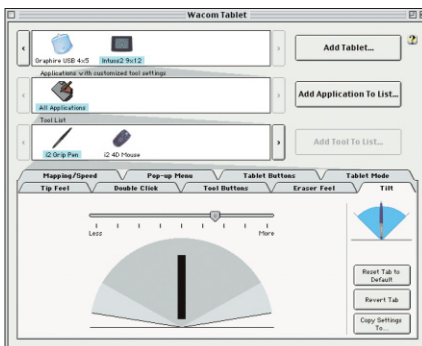
Wacom's new Intuos2 range – which replaces the existing Intuos system – consists of five tablets in sizes from A6 (4-x-5 inch) to A3 (12-x-18 inch) with a revised colour scheme and improved technology coupled with a set of eight ergonomically-designed input devices. I looked at two USB models – the A4 regular and the A3. The former offers an active area of 12.9-x-9.62 inches and the latter a whopping 18.28-x-12.67 inches. Both come with the new Intuos2 4D Mouse and Intuos2 Grip Pen; the A3 model is also available in a CAD configuration, which features an Intuos Lens Cursor.

I loved the Intuos2's new look with its purply-blue – Wacom calls it Midnite (sic) – colour. Far better than the old pale grey look, the new colour scheme gives the Intuos2 a more professional, expensive look, which if you have to have a big slab of plastic on your desk, is definitely the look to go for.

Get a grip

The Intuos2 Grip Pen has also seen a redesign with a wider rubberized grip area and optimized weighting. These changes, claim Wacom, reduce hand tension by relieving strain. As with previous models, it features a fully programmable double-side switch, a tip that offers 1,024 levels of pressure sensitivity, and an eraser.

Despite my general aversion to mice, I found the new Intuos2 4D Mouse a joy to use. Cordless and battery-free, it sits comfortably in the hand with your thumb and little finger resting on the sculptured rubberized indents on either side. Like Torvill and Dean on ice, it glides with ease across the surface of the tablet. A



You can adjust the sensitivity of the tilt function by changing the angle in the Control Panel.



resolution of 2,540dpi gives a high degree of accuracy.

A programmable, self-centring finger wheel lets you scroll through documents and in some applications you can use the finger wheel for zooming, navigation in 3D and audio or video jogging. In total, the Intuos2 4D Mouse has five programmable buttons that can be assigned to any keyboard shortcut. It also provides 360-degree axial rotation in supporting applications.

Two of many

The 4D Mouse and Grip Pen are just two of eight input devices available for the Intuos2 range. Wacom has taken the approach that for professional users, no single device will suit all applications. CAD users will, therefore, appreciate the Intuos2 Lens Cursor with its positioning accuracy of +/- 0.15mm; digital artists and images retouchers will find the Airbrush a must-have tool, and be amazed at the sensitivity of the Stroke pen with its soft-feel pen tip that accurately captures every nuance of your brushstrokes. The Intuos2 Ink Pen, a ballpoint pen with replaceable black refills is great for signatures and tracing artwork. A 2D mouse and Classic Pen complete the tools line up.

You can even use two devices at once such as rotating a 3D model while you paint a texture onto it – thanks to Wacom's DualTrack feature. Even better, each input device's setting can be customized and, because each has a unique Tool ID number, the tablet will automatically recognize the correct settings when the device is in use.

As with pressure, Intuos2 tablets can recognize when you tilt your pen or airbrush. In certain packages, adjusting the angle of the tilt will result in a thicker or thinner stroke; in others you can adjust tilt to define brush characteristics such as width, colour and opacity.

The only internal change between the original Intuos range and the new tablets is a higher sample frequency that apparently helps avoid interference from other electronic device – not something I've ever encountered – and improved tracking of input devices.

So the big question remains: should you upgrade from your old Intuos? If money is no object, then answer is obviously yes as all new technology is better. Yet stylish new looks and cool technology do come at a price, and it's one that's a lot higher in real terms than the original Intuos range. That said – while the differences between the two ranges aren't huge – the advanced feature set, range of input devices, new 4D Mouse will make most professionals – be they digital artists, video composers, CAD or 3D model creators – to work faster and more creatively.

Lynn Wright

Digit **EXCLUSIVE**

Pro-ONE

An excellent real-time video editing system, though the competition is strong and the lack of Windows 2000 support is annoying.

Format



Price
£935 plus VAT

Company
Pinnacle
pinnaclesys.com

Contact

Planet PC
01274 713400

Digit rating



Features

- PCI editing board with two DV connectors and breakout attachment.
- Breakout box with S-VHS/comp input and output.
- Premiere 6.0 with Hollywood FX real-time transitions/filters.
- DVTools capture/management utility.
- TitleDekoRT for real-time titles.

The game of leapfrog between Pinnacle and Matrox continues. The latter's RT2500 currently sits on the top of the pile of real-time DV editing cards, replacing the RT2000 that originally stole the crown from Pinnacle's DV500. As you'd expect then, with the release of the Pro-ONE Pinnacle has nicked it back – though how long remains to be seen.

The Pro-ONE bundle is based around a full-size editing card with a CCube DVExpressMX chip at its heart, which uses the same codec as the RT2500. The size means you'll need a full tower or one of those larger mid-towers to accommodate it. We didn't get to test the installation process, as the test system was shipped to us as a pre-loaded workstation from Planet PC, but it seems straightforward. The only big pain here is that Pro-ONE only runs under Windows 98 and Me. Windows 2000 and XP drivers are apparently on the way, but with no fixed release date.

Break out the video

As well as the card out of the box you get the standard Pinnacle breakout box, the usual set of cables and a whole stack of software. The breakout box has a good-sized cable (six feet long) but as with all of the other manufacturers, Pinnacle hasn't updated this since the days of analog-only set ups – so you have to use a separate cable for DV capture/playout.

Pro-ONE's main NLE tool is Premiere 6.0, and you also get Pinnacle's own DVTools capture/management application, the Hollywood FX set of real-time filters and transitions for Premiere, the TitleDekoRT real-time titling tool and Impression DVD SE for DVD authoring.

DVTools is an excellent capture utility, though very

idiosyncratic. For example, it has an extremely useful automatic tape scanning facility that looks at a tape's timecode and spots scene breaks. It then automatically captures each scene to a separate file.

Mighty real-time

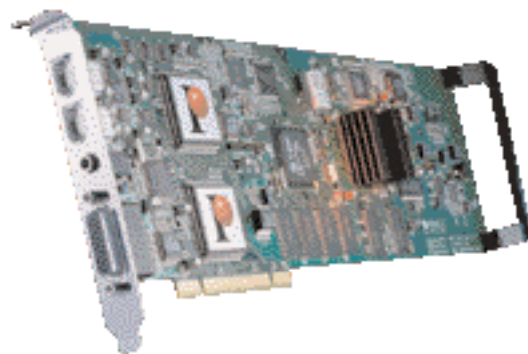
Central to the Pro-ONE is its real-time abilities. These are impressive, with the usual two layers of video complemented by two real-time title/graphic layers. Hollywood FX provides a whole bunch of filters and transitions with real-time 3D effects, alpha, picture-in-picture, page curls and a very limited form of colour correction. You can combine up to ten at once. There's also a real-time image stabilization tool that's good for basic work.

The Pro-ONE's real-time facilities stand up well against its main competition, Matrox's RT2500 and Canopus' DVStorm SE Plus. Against the RT2500, the Pro-ONE is notable for being capable of up to ten real-time effects (the RT2500 can do only one), real-time transitions between two graphics and the image stabilization tool – though the RT2500 has MPEG-2 capture and a £699 price tag.

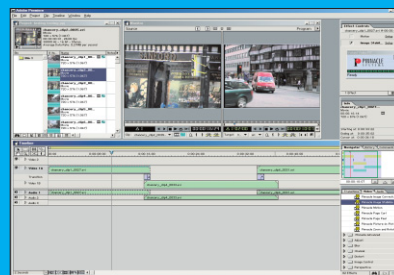
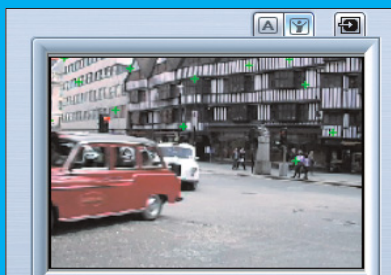
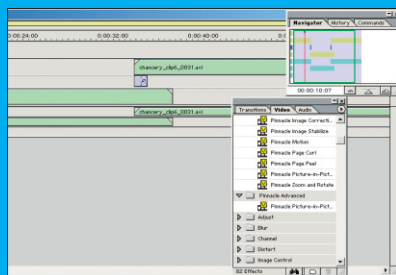
Against the DVStorm SE Plus, the Pro-ONE has access to real-time 3D effects in Premiere, and the image-stabilization tool – and is around £50 cheaper. The DVStorm fights back with a third layer of real-time video, an open effects system that is only limited by processing power.

Pinnacle's Pro-ONE is great if your work involves combining many elements, especially 3D, but you don't want to have to buy a new machine. Users with lower budgets or higher aims should check out its rivals.

Neil Bennett



Walkthrough • Real-time image stabilization using Pro-ONE



One feature unique at this level is the real-time Image Stabilizer filter, which removes shakes and jerks. To use the filter drop it onto the clip as usual. The filter will automatically launch, analyse the whole clip, zoom in a little and moving the clip around to counteract the movement. It also detects pans and zooms to avoid removing them.

3D Toolkit

Worth it for the full version of Electric Image 2.9 alone, it's also the best way to make your way into professional 3D.

Format



Price

£161 plus VAT

Company

dvGarage
www.dvgarage.com

Contact

Gomark
020 7610 8686

Digit rating



Features

- ElectricImage 2.9.
- Introductory and tutorial movies.
- Tutorial PDFs with project files.
- Sample scenes and models.
- Web-site support through extra tutorials, critiques and a forum.



Since its announcement in early summer, 3D Toolkit has got a lot of people excited. It's a set of education tools for the Mac, designed to turn humble folk into 3D whiz-kids even if the only 3D construction you've done before was playing with Lego as a child. Much of the buzz around the product has also been about the inclusion of the full version of Electric Image 2.9. For under £170. The current version of Electric Image is 3.1 (aka Universe), which costs a smidgen under £1,400, while 2.9 was the version used on films including *The Phantom Menace*.

dvGarage is the brainchild of Alex Lindsay, an ex-Industrial Light and Magic employee with eight years of Electric Image experience, several of which were spent working on the *Star Wars* prequel. The company's mission, according to Lindsay, is to give everyone the opportunity to create stunning 3D images and animations by giving access to the tools and skills that previously were only available to a select few.

3D Toolkit ships on a single DVD (or a set of CDs). There's no printed documentation – it's all in PDF form. This may seem cheap but when you add up just how many pages of information ship with the product, you realize that a full printed version of 3D Toolkit's documentation is not really feasible.

On the disc(s) you get the two constituent parts of Electric Image (Modeller and Animator), the central tutorials – plus a movie that lets you know what's on the disc, two movies introducing Modeller and Animator, manuals for the two tools, and whole bunch of goodies. These include scenes and models for you play around with, some extra tutorials on specific subjects, a few motion-capture data files, and Photoshop and QuickTime plug-ins.

The tutorials include movies showing you exactly what to do, PDFs with step-by-step guides to each technique and project files to begin with a show you what you're trying to achieve. They are split into three levels – basic, intermediate and advanced. The basic guides are very basic, but gently lead you up to the intermediate and then advanced tutorials. The guides are well written and easy to understand. Each step has a picture – and even basic tutorials have over 80 steps.

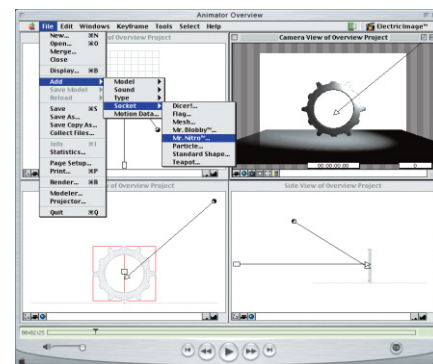
Tools for no fools

Electric Image 2.9 is a powerful tool, with a huge list of movie and TV credits to prove it. It can't compete with the latest versions of 3D tools (including 3.1 of itself) but it's better than anything else you can pick up for under £200. Previous to version 2.9, Electric Image was a pure animation package. This is the first version of the modeller and it has a few glitches. For example, it uses a different type of model structure from the animator, so you have to import and export – with no test rendering possible from the Modeller. This is the same in version 3.1, though. Unlike the previously available version there's no dongle, though this does mean that commercial plug-ins generally won't work.

3D Toolkit isn't for everyone. To get to grips with it you really need to be proficient with basic design tools such as Photoshop and know what things like bézier curves are – which should apply to all *Digit* readers.

3D Toolkit is an excellent solution for any creative from a graphic arts, Web design, or video editing background that wants to get into 3D. And for anyone who wants get their hands on movie-level special effects software for a ludicrously affordable price.

Neil Bennett



Power Mac G4 800



I first looked at Apple's Quicksilver Power Mac G4 867MHz Power Mac a while back, and now I've got to take out the dual processor Quicksilver for a spin. Surprisingly, when it comes to simple ROI I have to recommend the 867 system for most Mac users – at least for now.

The dual 800MHz machine includes five slots, including four 64-bit 33MHz PCI slots and an 4x AGP slot; a SuperDrive combination CD-RW/DVD-R drive; two 400Mbps FireWire ports and two 12Mbps USB ports; Gigabit ethernet; and three 3.5-inch hard disk drive expansion bays with one pre-installed Ultra ATA hard drive (80GB in the dual processor system).

The difference in the two comes down to sheer power. The dual 800MHz Power Mac G4 has double the memory and 3D graphics power – 256MB of RAM and an NVIDIA GeForce2 MX with TwinView graphics card and 64MB RAM in 4x AGP slot.

When the rubber hits the road, it comes down to one question: is the dual processor system £700 faster than the single processor 867 machine?

For some software the dual processors do provide a slight edge. In an overall Photoshop test using nine

actions and filters, the dual processor Quicksilver usually jumped through the hoops about 26 per cent faster than the 867 machine – but this was only true with files bigger than 60MB.

A Final Cut Pro test which utilized a suite of six actions consisting of transitions, text over video, frame blending, Gaussian blur, colour balance and scaling ran about 36 per cent faster. Where I did notice a speed difference, if not an earthshaking one, is in running Mac OS X, as it offers the benefit of symmetric multiprocessing.

The Nvidia Geforce2 MX TwinView that comes with the dual processor is really nice. It lets you attach an Apple ADC monitor and a CRT monitor and use both at once. If you'd like a dual-monitor setup, this could be a deciding factor.

To sum it up, if you're a heavy duty Photoshop or Final Cut Pro user (which means you're probably still using Mac OS 9.x), the dual processor system is probably the way to go. Ditto if you're planning on buying a system and plan on running the Mac OS X native versions of these applications.

Dennis Sellers

The dual 800MHz chips are highly suited to creative users – and the extra \$700 gets you a better 3D card and more RAM.

Format



Price

£2,499 plus VAT

Company

Apple
www.apple.com/uk

Contact

Apple
0800 783 4846

Digit rating



DSC-P50

The DSC-P50 is very friendly for quick, easy shots. Turn it on, choose a shooting mode (still image, low-light still, or movie), and hit the shutter release. The camera will emit a beam of light to aid focusing in low-light settings, and the 3x zoom button works smoothly, accurately, and moderately quickly in any shooting mode.

However, the £399 price (which, unfortunately, is the same as the dollar price) includes only two AA batteries, which went electrodes-up after only 40 minutes (or 57 shots) in our tests. We also tested an optional lithium ion battery pack and charger, which tripled the battery life but costs extra. Likewise, the camera scrimps on storage, with only a 4MB Memory Stick in the box. That'll only hold four images even at the camera's best compressed settings.

While it's an attractive camera, the boxy DSC-P50 seemed large for its weight, as though the components could have fit into a more compact case. A ridge on the front appears to be a finger hold, but its sharpness

makes holding the camera uncomfortable. Sharp edges on the too-stiff mode wheel on top of the camera also can be a bit tough on your fingers. Also, the LCD viewfinder is a bit small at 1.5 inches.

We saw a moderate amount of image noise in 8-x-10 prints, but they looked about as sharp as you could expect of a 2.1mp camera. The DSC-P50 reproduces colours accurately, though our still shots looked a bit dull, and like many similarly-specced cameras, the DSC-P50 had trouble distinguishing red from orange.

You cannot set exposure or shutter speed, and if you want to focus manually, you'll have to choose from only four focal lengths, rather than an infinite range; these would be big failings on a high-end camera, but people looking for an quick snapshooter probably won't miss them. However, the camera includes controls for ISO and spot metering. You can also adjust white balance and exposure compensation – showing that this camera offers a little more than you'd expect.

Jack Cole



The DSC-P50 is easy to use and takes attractive images but is expensive and ships stripped, so the true price is even higher.

Format



Price

£399 inc VAT

Company

Sony
www.sonystyle.co.uk

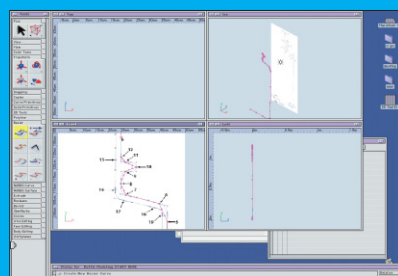
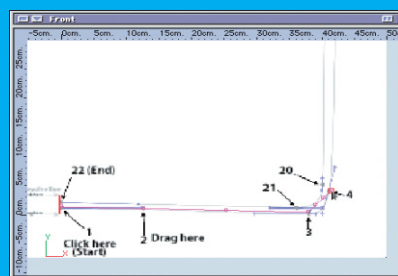
Contact

Sony
08705 111 999

Digit rating



Walkthrough • Taking lessons in 3D Toolkit



Each lesson can be approached from a number of different levels, depending on how confident you are about what you are doing. Tutorial movies walk you through each process, and there are printable step-by-step PDFs to work along with. Also, the first time you attempt each lesson you can turn on templates that show you exactly where to click.

Opus Pro

If single-platform multimedia isn't a limitation, the Pro edition of Opus is powerful, versatile and surprisingly usable – good value.

Format



Price
£212.75 plus VAT

Company
Digital Workshop
www.digitalworkshop.com

Contact

Digital Workshop
0870 120 2186

Digit rating



Features

- Database support including Run and Stop Query actions
- JavaScript-based scripting language.
- Collision detection between objects.
- Multiple object vector drawings.
- Rollover frames.

1 Illuminatus has for several years been a byword for affordable and approachable multimedia, which was confirmed this year when Digital Workshop released Illuminatus Opus. Now with this Pro edition, the program pretty much leaves all its existing competition behind and starts nibbling at the heels of Macromedia Director.

Opus Pro is a versatile multimedia creation and production package. You can use it to prepare interactive training materials and business work, or similar productions such as promotional multimedia titles, games and screensavers. This is done with a productive mix of Triggers, Actions, animation paths and drawing tools, as well as support for a great many picture, movie and audio formats. Opus Pro moves all this up a gear with several core upgrade features that professional designers would need.

Database controls

The most significant of these is the ability to link to ODBC data. Combine this with Opus Pro's use of variable data entry (now also including Expressions), and suddenly the program is in big-time development territory. User-entered data can be posted back to a Web site, or your presentation can fire off emails. It also comes with its own OpusScript language based on JavaScript, allowing more complex events to be built. The irony is that the Opus Pro interface is actually quite friendly for a multimedia creation package, but solid text-based scripting is essential for the program to be taken seriously by professional developers.

Beyond these big new features, Opus Pro is treated to a long list of small enhancements and clever tricks which actually make the program a lot more satisfying.

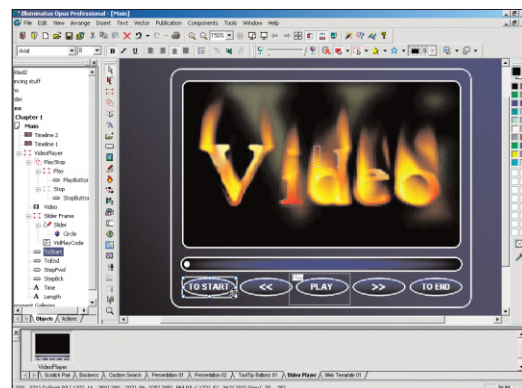
For example, you can now tell one object to react when it comes into contact with another using the new Collision Detection feature – no more fiddling around with additional triggers and events. This particular feature also lets you set Actions when objects move away from each other, which is an interesting touch.

Also welcome are little extras such as Rollover Frames (handy for context-sensitive pop-ups and tooltips), the detection of mouse movement itself as an Action trigger, and a simple but useful Resource Manager window for keeping track of associated component files. Then there are the tiny additions such as Count Words and Lines, Drop Zone (for refused triggers), and a Clock complete with Start and Stop Actions. Digital Workshop also states that performance has been improved, especially with respect to video, although we were unable to measure this.

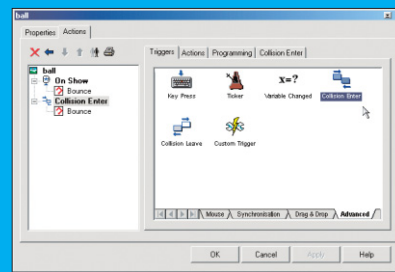
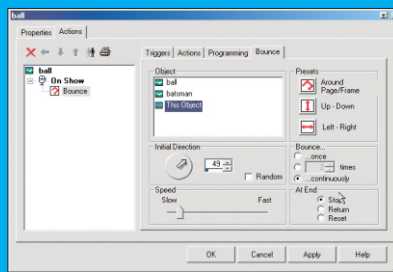
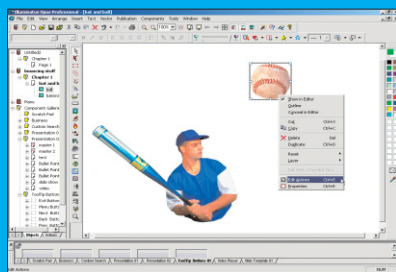
As with the Opus pack, Opus Pro is supplied with a second CD containing animations, backgrounds and various other resources, all royalty-free. To this end, while the upgrade cost from the original Opus is fair, upgrading from Illuminatus 4.51 or earlier is an absolute must at the price. Our only concern is the program's blinkered attitude to anything that isn't Windows: professional multimedia, and especially Web multimedia, ought to be multi-platform regardless of what kind of computer you use to create it.

If you can live with this, and are being forced to choose between PowerPoint and sometimes incomprehensible Director for your multimedia creation fix, Opus Pro is an ideal solution. It's more powerful than you'd think, yet rather easier to use than most people expect.

Richard Boardman



Walkthrough • Collision detection in Illuminatus Opus Pro



To create a simple screensaver with this batsman and a moving baseball. Right-click the ball and edit its Actions. Apply the On Show trigger and a Bounce Animation Action. A Bounce tab appears in the dialog window where we can customize the bounce direction, speed, frequency and so on. Apply the new Collision Enter Action and a secondary Bounce reaction so that the ball will bounce off the batsman image as well as the screen.

Sitespring

Provides a useful project structure, enabling efficient management of your Web developments, though its hardly unique in this.

Format



Price

£1,499 for a three-user licence plus VAT
Additional licences cost £350 plus VAT

Company

Macromedia
macromedia.co.uk

Contact

Computers Unlimited
020 8358 5857

Digit rating



Features

- Framework for the development cycle.
- File versioning means automatic back-up of all amended files.
- Projects can be published for clients to approve.
- A simple, clean Web-based interface.
- Flexible enough to manage any organization structure.

Anyone involved in Web development will know that medium-sized projects are at most 50 per cent creativity, and the rest is project organization, and managing client expectations. It is often inefficiencies in the administration of a project that have the most negative impact on the final product. A piece of buggy code can easily be fixed, but dropped deadlines, client dissatisfaction and spiralling budgets are a lot more difficult to resolve.

Sitespring is a server-based project management tool from Macromedia designed to focus on the problems Web teams face in managing medium and large-scale developments, and provides a structured framework for the entire development cycle – from simple task assignment through to client approval.

Sitespring is organized hierarchically with projects, tasks, clients and developers all administered through a well laid-out, Web-based interface. Defining the various components is largely up to the administrator, and this gives Sitespring a great deal of flexibility. Projects, for example, can be entire Web sites or new features added to existing sites; either way, they're built up from a number of smaller tasks, defined by a project owner, and assigned to specific developers. Project owners can, at a glance, oversee all aspects of the project, from timetabling to workflow, and can automatically produce reports on what's going on.

When a team member logs onto the system, they're presented with a personalized view of tasks assigned to them. This could be anything from telling an account manager to invoice a client, or a developer to create a new login function. Each task includes a description, a completion status and deadline, and a file tree interface lets you locate and attach external files – such as

content provided in Word format. Once tasks have been completed, they can be published to a secure project Web site for client approval.

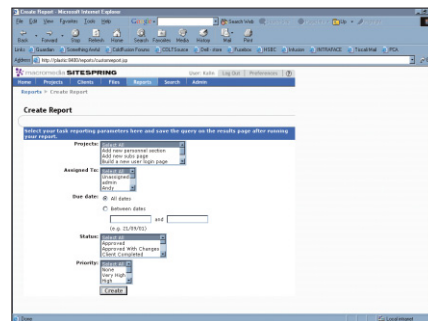
The project site is different from the internal Sitespring site used by members of the team, and the project owner can choose from a number of predefined styles, or design their own. From this project site, clients can add comments, approve changes, and request new tasks. A threaded discussion is set up for each project, so owners, developers and clients can discuss project issues throughout the process.

Managing versions

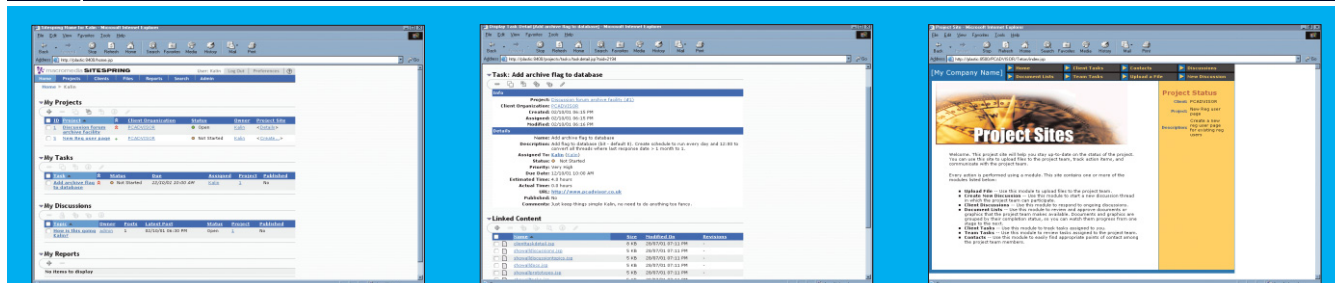
Given that a number of developers may be working on the same project, or different tasks may involve the same files, a file management system is included in the package. This file versioning control feature means that there are always back up copies of updated files, so changes can be undone easily. It also means that developers can track when the last updates have occurred so as to not overwrite another's work.

Sitespring is a well thought-out piece of software, but I imagine that any established development team is running some kind of project management system already and it doesn't really offer any unique functionality. It's ideally suited to the medium-sized team of between five and 20 staff, but even if your team (or the project for that matter) is smaller, Sitespring can help to formalize many of the routine tasks. Of course, as with any project management system, its usefulness hinges entirely on everyone being motivated enough to keep the content updated, which could be a major task in itself.

Neil Jones

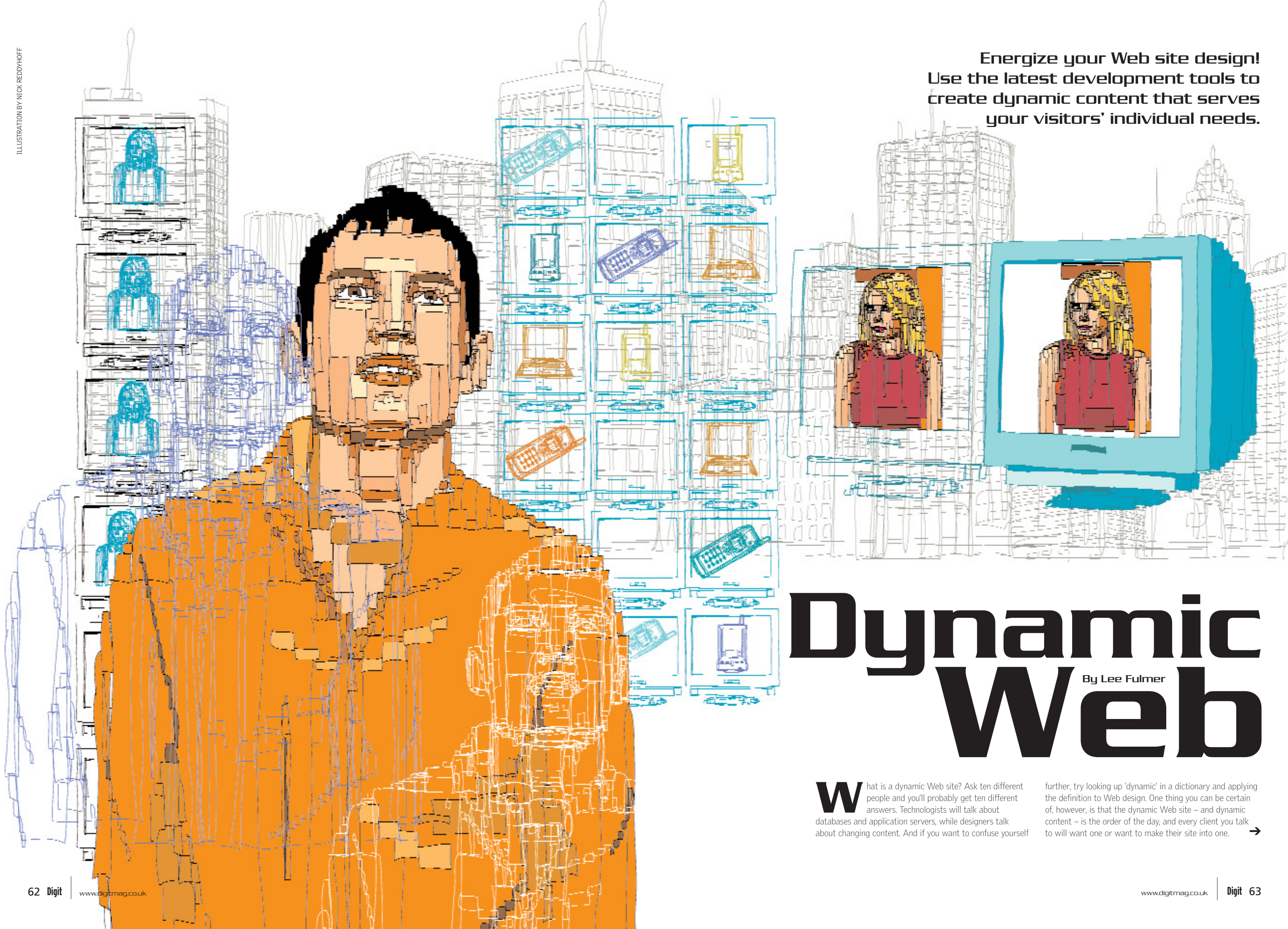


Walkthrough · Using Sitespring to manage your development



Once a developer logs on, they're presented with a personalized overview of tasks that have been assigned to them. They can work through these tasks, log the number of hours' work, and then update the project status. Completed tasks can, where appropriate, be published to an external client project Web site for approval.

Energize your Web site design!
Use the latest development tools to
create dynamic content that serves
your visitors' individual needs.



Dynamic Web

By Lee Fulmer

What is a dynamic Web site? Ask ten different people and you'll probably get ten different answers. Technologists will talk about databases and application servers, while designers talk about changing content. And if you want to confuse yourself

further, try looking up 'dynamic' in a dictionary and applying the definition to Web design. One thing you can be certain of, however, is that the dynamic Web site – and dynamic content – is the order of the day, and every client you talk to will want one or want to make their site into one. →

The basic premise of a dynamic site is that rather than coding all your pages individually, you break up the pages into their constituent components and put them together on-demand in response to user requests. By storing the various page elements separately – such as headers, footers, navigational elements, images, and text – there are no longer any Web pages as such.

When the user wants to view a Web page, the system uses a template or bit of code to pull together the elements it needs to build the page before sending it to the user. This separation makes it much easier to change individual pieces of the site or its design without compromising the whole.

Getting personal

Although used interchangeably, personalization and customization are actually different techniques for delivering content to users.

"myYahoo, MSN, and Amazon's 'personal' store are good examples of dynamic customized and personalized sections of sites," says Martin Lanser, Bluewave's CTO. "They're good examples because they use the technology appropriately, and not just because they can."

Personalization is all about enabling the user to control their experience with the content. Good examples of the use of personalization are the personalized versions of the portal sites Yahoo and Excite. Both of these sites offer a massive range of content and have organized their information in a traditional hierarchical manner through which the user needs to navigate to find what they want.

Both myYahoo and myExcite enable the user to have their own homepage that contains the information they're most interested in from the site, as well as links to particular genre-based areas.

Customization, on the other hand, is about tailoring the content for the user and is of particular help when users want to manage their visits to a site that has massive amounts of content. The basis on which the content is tailored could be any number of things – such as their geographical area, the site they have just come from, profiling information about the user or even the type of connection and browser they're using.

Amazon.com uses customization to proactively market products to their users. The system compares your previous purchases to your profile and looks for products you might be interested in and tells you about them.

A sense of community

A further area that adds dynamism to the Web is adding community features to the site, letting users not only interact with site visitors, but also update and alter the content of the site themselves. The advantage is free content from the visitors, and a site that's updated every time a person interacts with it.

The idea of an online community isn't a new one and owes a lot to the bulletin board system (BBS) movement of the late 70s and early 80s. Run by hobbyists, BBS systems were simple text-based affairs similar to newsgroups, but they provided a whole new channel of communication.

While modern communities may be graphical affairs, the purpose is still the same: to allow people who may not have the chance to do so in real life to 'meet' and exchange ideas.

Whether it's a message board, chat room or complete virtual world, building a community on your site will draw people to it and once you've fostered a community of users, you have a captive audience for the rest of your site.

A perfect example of this is the Web site for



CASE STUDY: GMTV Web site Dynamic content made easy



GMTV is one of the most popular breakfast television shows in the world – and its Web site receives about 2.5 million page impressions a month. So when the GMTV Web team decided to redevelop its Web site, the creators had to be careful how it changed. Part of the problem is that the GMTV editorial team creates an extensive quantity of content every day for the show.

"When a Web site is as information rich and up-to-the-minute as that of GMTV, you really need a reliable, user-friendly application that can quickly and easily process all online content from text to video", says Cliff Smyth, GMTV Web development manager.

The GMTV Web team came up with an idea of what they wanted the new site to achieve and wrote a functional specification. Then, working with

design-company Goss Interactive, they worked out how make the site more dynamic. The previous version of the site was predominantly flat HTML files that were difficult to update, so Goss decided to implement a content-management system (CMS) and process to make the site easier to manage.

The Web site had to be extensively re-engineered to separate content from presentation, and as the GMTV team already had some experience with Macromedia ColdFusion, it made sense to develop the CMS within ColdFusion so content producers could manage it themselves.

Goss built the CMS so the content creators could input stories directly into the system without having to understand the technology behind the site. Meanwhile the Web-development team built the templates and dynamic pages using CFML. With all the content being created before the show goes on air, the CMS enables editors to automatically schedule the system to make it 'go live' on the day of the show.

ColdFusion was also used to build gateways to bring in information from outside the GMTV domain, such as weather forecasts, as well as integrate the pieces of the old GMTV site the client wanted to keep, including message boards and SMS services.

GMTV, www.gmtv.co.uk
Goss Interactive, www.goss.co.uk



Serious, one of the country's top dance labels and club night organizers.

"On the clubbing site www.seriousworld.com, the message board area has a zone where users can 'ask the professionals'," says Graphico's sales director Graham Darracott.

"In this area it's possible for any budding DJ or fan to ask industry-specific questions and the only people who can reply to the queries are one of the management at Serious," he says. This is exactly the sort of thing that encourages the company's target audience to visit the site and then keep coming back.

Multiple platforms

Yet with any technological development, the pace of change can be startling. One area of rapidly changing rules and opportunities lies in the delivery platform of the design itself. Mobile phones, televisions, PDA, games consoles, and other interactive platforms are forming a digital hub that demands a diet of dynamic information. Here, the benefit of creating a dynamic Web site off the bat means that you can extend the reach of your client's work onto a rapidly growing population of diverse platforms.

Yet, although increasingly users are accessing portions of the Internet from devices as diverse as PDAs, television sets and games consoles, many want to be able to interact with the Web in all its dynamic glory, rather than walled-off areas tailored to their platform.

This isn't likely to change in the immediate future, simply because most sites just aren't usable on a Palm's 5-x-7cm screen, are barely readable on a television from 3m away, and don't work without plug-ins you can't download onto a console.

"In a world where we're surrounded by content and the devices are multiplying, the one thing that remains consistent is the desire to get information," says Adam Oliver of the Group CIO's office at BT. "Some people see technology as the enabler, I see it as transparent. I just care what it can do for me to get the right information at the right time to the right device."

By separating the content, presentation, and navigational elements into bite-sized chunks and delivering the final page dynamically, making a site universally accessible becomes simpler. The way Railtrack (www.railtrack.co.uk) changed its site during the rail disruption last October is an excellent example. Frequent cancellations and service alterations at short notice meant tens of thousands of people who required access to information while on the move.

With rail timetables already stored in a database, Railtrack was able to respond to the problem quickly by adding a WAP gateway making information available on mobile phones.

Dynamic Web sites aren't only about good-looking content. They provide compelling advantages in both

delivering relevant, tailored information to an individual user, and can save clients time and money by being able to be delivered to multiple platforms or be updated without having to recraft the entire site. Catalogues can have entire inventories swapped instantly, while visitors can see financial data presented as a 3D bar graph and follow every move of the stock exchange in real-time.

Creating a dynamic site means carefully site planning, and more time spent considering the usability of your site – just what information visitors will want to access on your site and how will they want it served up to them. It also means getting to grips with database technology, and understanding your CGIs from your ASPs to make that user experience as seamless as possible. The results, however, mean more creative design, and a more responsive audience.



CASE STUDY: Habitat *Dynamic catalogues hit the Web*

Web design agency Digit was commissioned by home-furnishings store Habitat to redevelop its Web site to coincide with the launch of the store's new catalogue. The client needed the site to be able to work in multiple languages, and they wanted to be able to update the site themselves so they could add or remove products, as well as run promotions.

Digit developed a solution that used a combination of Macromedia Flash 5 and Macromedia Generator to provide the necessary dynamism to ensure Habitat could not only keep the site up-to-date itself, but that it would also be able to more easily handle multiple languages.

The site makes extensive use of XML as the main method for posting and retrieving the text-based information, including user-session variables. Java servlets are used to parse the XML between the Oracle database and Generator, which is used to produce all of the product movies in Flash.

"To make it work, we had to split the content into very small individual chunks, which gives us much smaller file sizes as well as the ability to reuse the same chunks of content in a variety of places," says Nick Cristea of Digit.

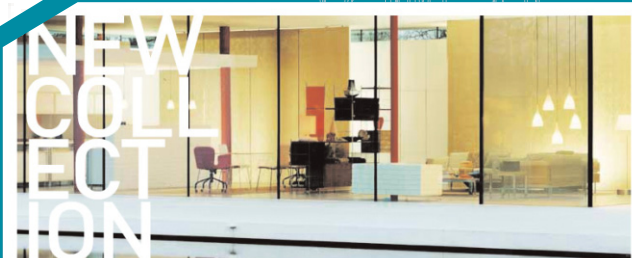


The site also uses a bespoke content management system (CMS) that enables the client to update and change anything on the site in seconds. By using a CMS to handle the data, the site can be configured to change itself depending on the time, day of the week or even the weather outside.

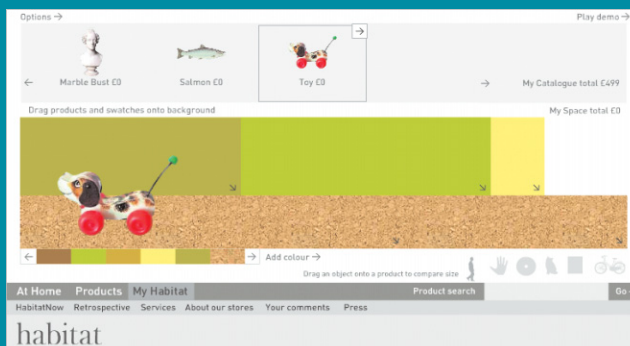
"This means that instead of just using the idea of 'dynamic content' to keep the Web site up to date, we can also start playing with the look, feel and personality of the site itself," adds Cristea.

The Web is the ideal medium with which to start exploring the idea of ever-changing and aesthetically evolving personalities, and the Habitat site with its mood board (myHabitat) is a perfect example of this, Cristea adds.

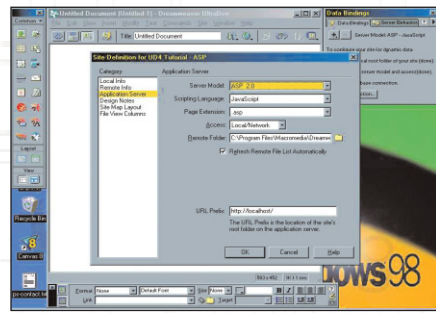
Habitat, www.habitat.net
Digit, www.digitlondon.com



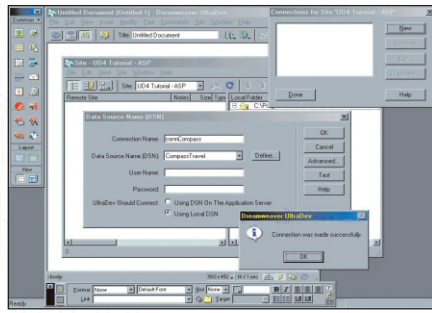
Interiors Products My Habitat Product search Search →
HabitatNow Retrospective Services About our stores Newsletter Your comments Press



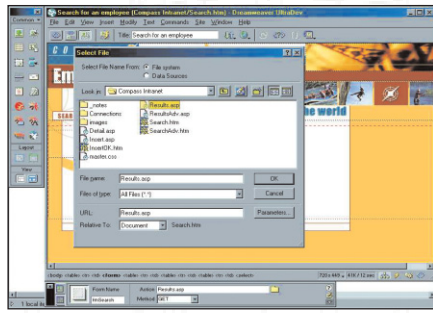
WALKTHROUGH: CREATING DATABASE LINKS IN ULTRADEV



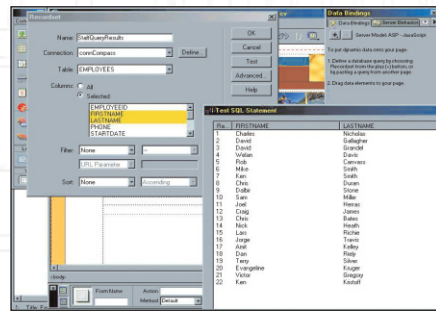
Step 1: The first thing you need to do is to define your Web site and configure the application server. In this example, we've selected ASPs using JavaScript and will run the site off on the local PC using Macromedia UltraDev and Personal Web Server.



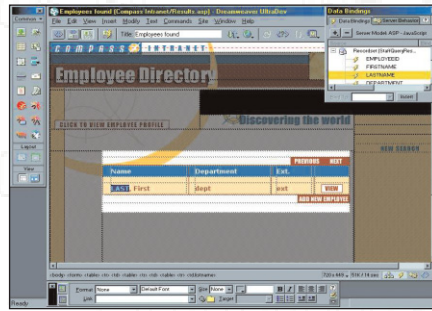
Step 2: With the application server set, you need to set up a connection. In the Data Bindings window, select the Connections dialog and click New. In the DSN dialog, give the connection a name (for use later), select the DSN to use (a local Access file on the PC) and test the connection.



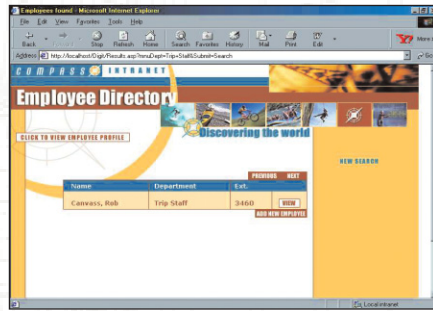
Step 3: Once you've set up the connection, you need to create some Web pages to access it. Here we're using the 'search.htm' file in the UltraDev ASP tutorial folder to search for staff in a company directory. Configure the search form to use the 'results.asp' file to perform the actual search.



Step 4: Now open the results.asp file and click the '+' icon in the Data Bindings window and select New Recordset. Give the query a name (StaffQueryResults), select Connect (connCompass created in 2) and select the fields you want displayed by the results and set the filter.

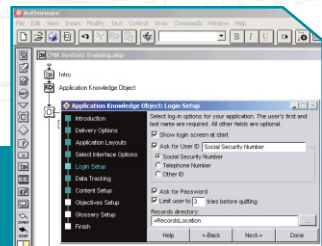


Step 5: The final step is to copy the fields you've selected in the Recordset dialog and insert them into the results.asp page. Select the area you want the field to replace (in this instance 'LAST'), select the field you want in the Recordset list in the Data Bindings window and click insert.



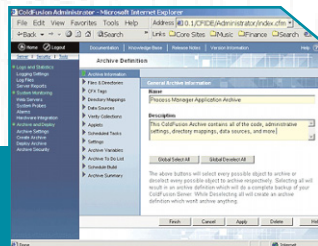
Step 6: Once you've saved the results.asp page, start your browser and browse to the local Web site and the search.htm file. Select a department from the pull-down menu and click search. The FORM action on the search page will execute the results.asp page and display the results.

TOOLS FOR CREATING DYNAMIC WEB CONTENT



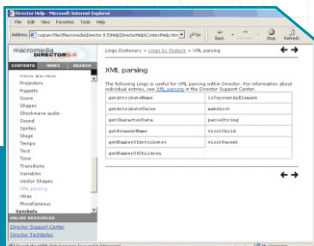
Authorware 6

Price: £1,889 plus VAT
Company: Macromedia,
macromedia.com/uk



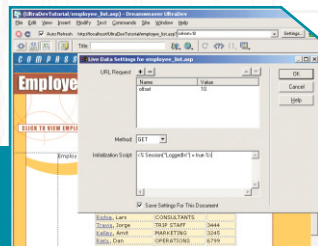
ColdFusion 5

Price: £999 plus VAT
Company: Macromedia,
macromedia.com/uk



Director 8.5

Price: £1,100 plus VAT
Company: Macromedia,
macromedia.com/uk



Dreamweaver UltraDev 4

Price: £499 plus VAT
Company: Macromedia,
macromedia.com/uk

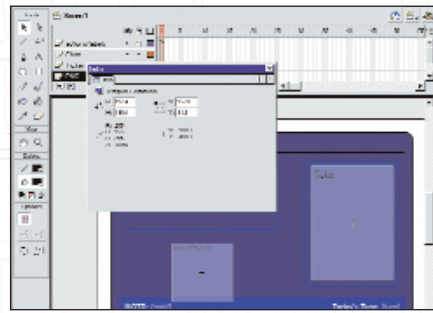
What distinguishes Authorware is the sheer scope of what you can do with it. The number one tool for creating professional multimedia CDs and kiosks, version 6 applies all this media handling power to the Web. The program uses a visual metaphor to build interactive applications and the system is particularly well suited to online training. New features in version 6 include a rich-text editor, support for XML, enhanced ActiveX support and one-button publishing.

Macromedia ColdFusion differs from other development environments in the way it combines page design with code generation and the database itself to deliver a complete solution. By installing ColdFusion 5 on your servers, you create an entire environment that you can use to develop, build and deliver dynamic sites. Content, templates and code are all stored within the ColdFusion environment reducing the need for a database environment.

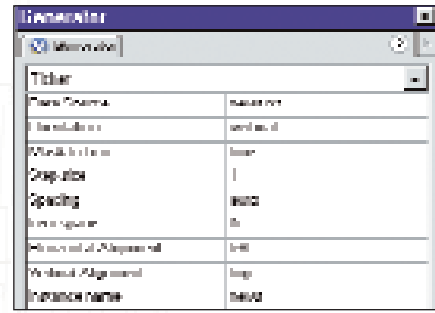
Misunderstood by designers, Director is clearly more Authorware Junior than a bloated version of Flash. Director's strengths are its ability to manipulate 3D objects, and create 3D interactive worlds. Director files are also linkable – being able to talk to each other and pass information back and forth. This allows you to break-up interactive applications into smaller pieces that load quicker, and makes it easier to change a single module without recoding everything.

By combining Dreamweaver with UltraDev, 4, it's possible to develop ASP, JSP, or ColdFusion pages within one application. UltraDev makes it easy to create server-side scripts and connect Web pages to any data source that's accessible via the UltraDev application server. A drag-&-drop interface lets you bind objects on a page to content and you can add the necessary code to connect to a database without the need to understand or write SQL.

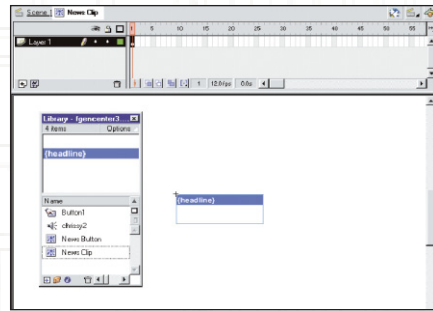
WALKTHROUGH: WORKING WITH GENERATOR AND FLASH INTERACTIVITY



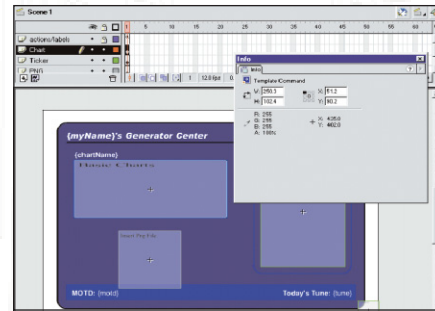
Step 1: Using Macromedia Generator and Flash, you can create dynamic graphics that are updated live. In this case, we'll create a news ticker and line chart. First, select a ticker template (we designed this one) and place it onto the Stage.



Step 2: With the ticker selected, open the Generator Panel and change the Data Source to the data text file – in this case news.txt. In the text file, create the text you want. Label each element of the news. The first column should be labelled 'Clip' as the ticker uses this data to separate the stories.



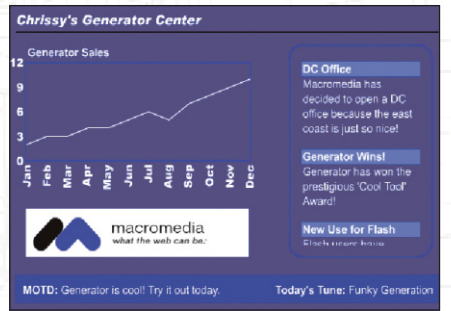
Step 4: Create a News Clip movie clip in symbol-editing mode, and then add Flash Actions to make the ticker stop and play. You could also add a Get URL Action if you want to open an HTML file with more information on the headline. You should then integrate this clip into the ticker object within Generator and use it to control the ticker.



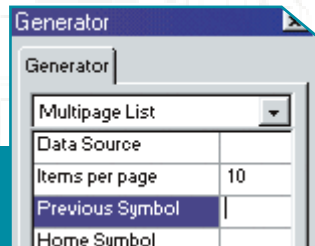
Step 5: To add a live line chart, create a chart layer and drag it onto the stage. Choose a data source in the Generator Panel (Window>Panels>Generator) and modify the settings, changing the Data Source to the chart data, such as chart.txt.



Step 3: Test the movie by selecting Control>Test Movie. The ticker should appear with several news items scrolling in it. When the cursor is moved over the blue rectangle, we want the ticker to stop moving. To do this, first close the Test Movie window and return to the Generator template.

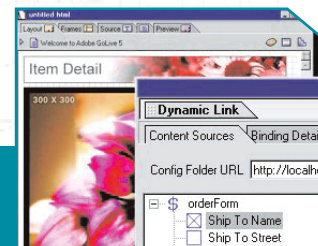


Step 6: Create the chart text document, with the two value labels on the first line separated by commas, then the actual data on separate lines, again with commas separating the data. Link this to the Generator Panel. Finally, test the template by selecting Control>Test Movie – that chart should appear based on the values you entered.



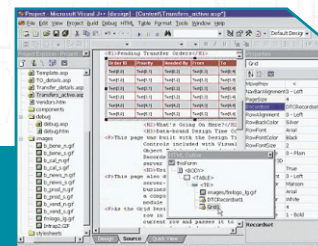
Generator Studio

Price: £899 plus VAT
Company: Macromedia,
macromedia.com/uk



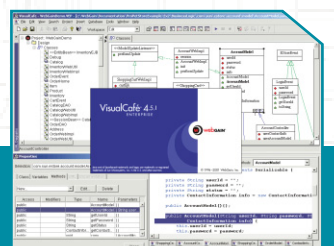
GoLive

Price: £238 plus VAT
Company: Adobe, 020 8606 4001
www.adobe.co.uk



Visual InterDev

Price: £475.99 inc VAT
Company: Microsoft,
www.microsoft.com/uk



WebGain Studio

Price: 6,932.50 euros
Company: WebGain,
www.webgain.com

A server solution used for delivering dynamic graphics, Generator enables you to easily separate content from design. When coupled with Flash, it is possible to deliver customized animation and content that responds to the user's navigation and requests without needing to change the page design. The Enterprise Edition of Generator (£2,500 plus VAT) is a scalable solution for delivering real-time, visual content to fast, personalized Web sites.

Building ecommerce sites requires knowledge of complex database systems, transaction protocols and even programming environments. However, there is an easier way: Adobe GoLive. Using a feature set in GoLive called dynamic linking and a set of ASPs, it lets you connect to and deliver content from any ODBC-compliant database without prior programming knowledge or server-side installs. The ASP code is written by GoLive's Dynamic Link for you.

Visual InterDev provides an environment for rapidly designing and building, data-driven Web sites. Visual InterDev primarily focuses on the creation of ASPs using VBScript, however it does work with a variety of data sources including files such as from Access and FoxPro. As a Microsoft product, its usefulness is limited to delivery via Microsoft Web servers, but it does provide a simple way to visually design sites and modify databases.

Marketed as an ebusiness tool, it includes Dreamweaver UltraDev 4 for site building. Aimed at letting developers focus on the design and implementation of solution rather than having to develop a complex infrastructure from scratch, WebGain has support for enterprise JavaBeans (EJBs) as well Java 2 Enterprise Edition (J2EE) for connecting your sites to WebLogic or iPlanet servers. It also provides a unique, optimized XML parser.

With a wider than ever selection of professional titling tools available to desktop editors and compositors, *Digit* shows you which one to invest in.

By Neil Bennett

Director:
Producer:
Screenplay:
Editor:
Music Director:
Director of Photography:
Animation:
Production Designer:
Art Director:
Robert Johnson
Lisa Lake
Severine Hamilton
Kate Roberts
Mark Saberton
Stuart Warren
Marrissa Wyddelingum
Andrew Dillon

Type in Motion

digital video

digital video

digital video

digital video

digital video

Notorious Films Presents

fight fight
little fight

Title Fight

fight fight
little fight

featuring

Dee Major

Dee Major

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ILLUSTRATION BY MANDIE JOHNSON

Titling has never been seen as the most exciting side of video editing and compositing. Although its text and graphics provide clarification to the meaning of video and audio, and provide the structure (beginning, section breaks, and end) of most video pieces from programmes to adverts, it's often seen as the last part of the job. Even creating the opening credits of a piece can be thought of as one step above the titling grunt work of building subtitles and end credits.

A large part of this attitude can be blamed on the basic tools on offer from the desktop solutions. Most editing and compositing applications offer text tools that wouldn't look out of place in a shareware DTP package. Many plug-in manufacturers offered titling plug-ins, but while they are a great improvement on built-in tools, they can't compete with the text and graphics tools available to static graphic designers. It's hardly surprising then that most titles are created in Adobe Photoshop and then transferred to compositing tools for animation.



"I love Photoshop as it allows me to be extremely flexible and gives me the time to continually refine designs," says Alan Howell of post and animation house Keyframe. Howell has over ten years' experience creating titles for television programmes, and has been working with desktop tools since 1997, when Keyframe made the controversial choice of dropping its Quantel Paintbox for desktop kit.

"Using layers in Photoshop is like having a painting that never dries," he says. "Nothing is committed until I want it to be. The subtleties and built-in effects allow me to very quickly achieve the result I'm looking for."

Howell believes that conventional tools such as Adobe After Effects and Photoshop are enough for 90 per cent of projects – only whipping out the specialist tools on rare occasions. His colleague, designer and animator Stuart Houchin, agrees.

"Often plug-ins are needed to achieve certain effects that could not be created otherwise," says Houchin. "They can also be great timesavers – but they should be used creatively and sparingly."

However, over-use of conventional effects from the main tools can also make for a tacky end result.

"I don't like to see standard filters and plug-ins being used too often," he says. "I think it shows a lack of creativity and ideas, as well as a lack of in-depth knowledge of the software and its capabilities. A classic case is the over-used Photoshop Lens Flare – pure cheese."

Fontastic

Choosing the right font for materials destined to be shown on a TV is much harder than choosing one for print or computer-based output. Television pictures are interlaced, so thin lines will appear to flicker. For this reason, avoid serif fonts, thin fonts and small characters. If you have to use a font with serifs, such as for company logos use a high blur to soften the edges before final output.

"The types of font I like are ones that are functional," says Howell. "You just can't beat Helvetica. Some may find it boring – but it's such a solid, balanced font and good for all situations. I wish I'd designed it."

Another way to improve legibility is get the right field rendering setting. Some tools, such as Pinnacle Commotion, allow you to choose between moving text on each field within a frame or just with every frame. The former reduces interlace artifacts while the latter gives less flickering with certain fonts and scroll rates. It's often best to try both before deciding which to go with.

One thing often missing from titling applications is font management. Organizing your fonts and, more importantly, avoiding becoming swamped by an overload of fonts – especially if you buy large collections – is best performed by the standalone tool. The main tools here are Extensis Suitcase 10 (reviewed in *Digit* #40) and Adobe Type Manager (ATM – reviewed in *Digit* #16). ATM's future development is in doubt after Adobe announced it would not be creating a Mac OS X version of the product.

The easier choice

Users will be pleased to know that choosing their titling tool isn't nearly as difficult as choosing fonts. New plug-ins are appearing that offer far improved text and graphic controls, while compositing suites (and, to a lesser degree, editing applications) are getting better with their in-house tools.

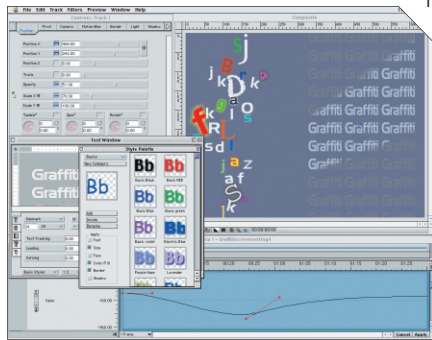
If the hype around tools like those featured here is to be believed, you may not need to start out in Photoshop ever again. The combination of text and graphics tools in these programs match their static companions – and their motion-specific features should be enough to keep most users more than happy.

BORIS GRAFFITI



Price: £375 plus VAT (Professional version £750 plus VAT)
Company: Boris FX,
www.borisfx.com
Contact: Polar Graphics,
020 8868 2479

Graffiti is Boris FX's more traditional titling plug-in for NLEs – sitting at a much lower price than its full compositor big brother, Red. Graffiti runs under a huge range of editing and compositing systems including Adobe Premiere, Apple Final Cut Pro, dpsVelocity, Fast studio.DV, in-sync Speed Razor, Ulead Media Studio Pro and Adobe After Effects. The Professional version adds support for higher-grade products such as Avid systems, Discreet Edit, Fast Purple and Silver, and Media 100 i and iFinish.



Boris Graffiti is currently available at version 1.0. Version 2.0 was expected to ship in Q3 of 2001 when announced in July, but is now not expected to appear until the end of this year. Major additions include true vector text, better animation tools, audio support, and support for third-party After Effects plug-ins.

All characters within a title exist as vectors until the final footage is rendered. As well as providing sharp

text at any size, this allows users to edit the vectors for full typographic control over individual characters. Title animations can also be output as Flash animations.

New animation features include Type On text, which works like a text typewriter, with the addition of progressively applied individual character animations such as skew, rotate, scale and opacity. Version 2.0 also allows the path shape and text position for text on a path to be animated over time.

A scratch audio track makes synchronizing titles to audio easier, with a waveform display and level controls included. Graffiti also includes a set of compositing tools including 27 apply modes for each layer, motion blur (with 3D directioning), particle filters and dynamic updating of views of animated parameters – and support for Open GL and dual-processor environments on both Mac and Windows systems.

Red's open 3D space was one of the tool's most notable features, and Graffiti incorporates some of this to allow text to be mapped to 3D objects. Characters can also be extruded and composited in three dimensions.

POWER CG PLUS



Price: \$495 (about £342)
Company: Cayman Graphics,
www.caymangraphics.com
Contact: Cayman Graphics,
001 801 254 6979

Titling tools generally come in one of two varieties: plug-ins for Premiere and its ilk, and standalone tools. Cayman Graphics has thrown tradition to the wind with Power CG Plus, which is available both as a standalone application or as a plug-in for Premiere, dpsVelocity, Speed Razor and MediaStudio Pro. The application and plug-ins ship on the Power CG Plus CD.

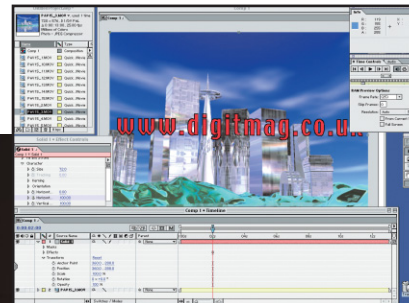
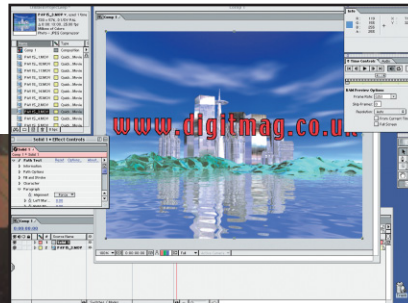
In the past, Power CG Plus was a static title generator, but Cayman Graphics has added TextFX. This adds a timeline to the package, onto which you can place over 100 keyframes per layer for control over cropping, size, position, blur and fade. The keyframe editor shows two screens: one for selecting which portion of the layer to display, and one for selecting the size and position of the layer.

Power CG Plus has an impressive set of static tools as well. These include 256 levels of anti-aliasing and 256 levels of transparency. Colour controls include RGB and HLS level adjustment – with blending of colours, background video, and transparency in colour gradients possible. An advanced colour-gradient builder allows gradients to be applied to characters, edges, shadows and background colour boxes. Linear colour gradients can have up to 16 colour points with up to 90-degree rotation, while area gradients can have up to five points.

The tool can work with up to 1,000 layers, which can include up to 256 levels of background video plus 32 background colour boxes, 16 tabs, 16 colour logos, 16 textures and 25 typefaces per page. It supports an unlimited number of text styles and text controls include character heights of between minus 600 to 600 scanlines at one-scanline increments, character widths of ten per cent to 500 per cent in one per cent steps, and italics angles.



ADOBE AFTER EFFECTS: SEEING YOUR WAY TO A VENETIAN BLIND



Want to add a little extra to your title without it looking like something from *Top of the Pops* in the 80s? One idea is to make your title disappear like a Venetian blind opening, which can be achieved using the text-on-a-path tool in most packages. In After Effects, this is called the Path Text effect. Create a new text layer and add your text string. In the Effect

Controls, set the path shape type to Line, set the paragraph alignment to Force, and adjust the two path vertices to stretch across your comp. Move the time marker to your starting point, and create a keyframe using the Horizontal Scale value. Move to the end point and change the scale amount to zero per cent. The text will slide smoothly into the background.

INDIA TITLER / PRO



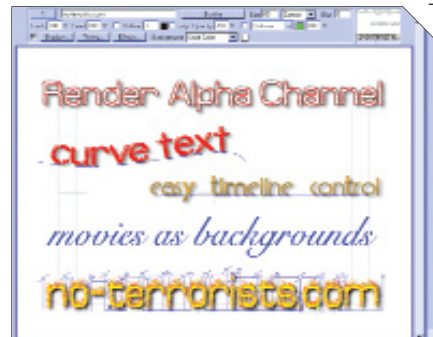
Price: \$339 (about £234) (Pro version \$879)
Company: INew Digital Video Editing Software,
www.inewdigitalvideoeditingsoftware.com
Contact: INew Digital Video Editing Software,
001 877 880 6973

In a market ruled by broadcast character generator, NLE system and effects plug-in manufacturers, single plug-in manufacturers have had to try hard to differentiate themselves. INew Digital Video Editing Software (INDVES) has done this by re-writing the font rulebook.

Rather than working with standard TrueType or PostScript fonts, India Titler uses a format called DVFonts, which sit inside ActiveFile data (.afd) files. INDVES claims that this is the only 32-bit font distribution standard. Each character exists as a separate movie, allowing users to alter individual character's parameters – such as font, colour, opacity and texture. Also, when text moves along a motion path, each character moves along the path rather than the whole word or block moving as one, which gives smoother motion.

The ActiveFile format is open to more than straight text characters. You can also include objects, 32-bit pieces of footage or still images, and textures, full screen backgrounds, or borders. DVFonts don't need to stick to text characters either: they can be made up of animation or footage elements. The Pro version ships with India FontMaker, which lets you create your own fonts.

India Titler runs as a standalone application and can output to both AVI and QuickTime formats, as well as a



Targa sequence. It can also import AVI, QuickTime, MPEG-1, and most image formats. As .afd files can be quite large, India uses a proxy file (.afp) while you work to save disk space. When you render, it pulls in only the .afd files that you've used.

India Titler ships with over 600 royalty-free animations and textures over eight CDs. The Pro version adds 70 royalty-free DV fonts plus the FontMaker utility – and ships on a whopping 24 CDs.

TITLEMOTION 4.2



Price: £465 plus VAT (Premiere version £250 plus VAT).
Company: Inscribe,
www.inscriber.com
Contact: Gee Broadcast,
 01256 810 123

Inscribe has a long history and a good reputation within the broadcast CG market, and has managed to bring its experience into the desktop arena without replicating its online boxes. TitleMotion runs as a plug-in to NLE systems including Edit, iFinish, dpsVelocity, Premiere, and Speed Razor. It includes text creation and animation controls as well as graphics tools, and can create media at resolutions up to 800-x-600.

The plug-in's typesetting controls start with the usual kerning, leading, and rotating controls – but add more features such as 256 levels of transparency, angled ramp shading, and soft-edge shadows and glows. Users can also bevel text and place characters on a bézier-splined path.

Comprehensive management controls are included. Over 200 pre-designed text styles are available, as are 200 editable titling templates. Users can create and share styles and templates. TitleMotion includes an integrated spell-checker, text file import for long credit rolls, and multi-lingual support.

Graphics tools include the creation of boxes, circles, ovals and spline-based objects – plus the ability to bring in logos and apply text effects such as shadows, tints and rotation. Graphical elements can also have a number of different effects applied to them including extrusions, colours, blends, shadows, and textures.

The TitleMotion FX animation editor allows multi-layer animation of text and graphics to be created. As well as following individual flight paths, each object in an animation can have independent acceleration and deceleration, motion in true 3D space, transparency and filter effects – all of which are keyframeable. Animation can also be saved as part of titling templates.



TITLEDEKO PRO



Price: \$350 (about £250)
Company: Pinnacle,
www.pinnaclesys.com
Contact: Pinnacle,
 01895 424 228

TitleDeko Pro is the level-jumping upgrade to a product that ships as standard with Premiere and many Avid systems. The Pro version follows the same product path, being compatible with Premiere, plus Avid Media Composer, Symphony, Xpress and Xpress DV.

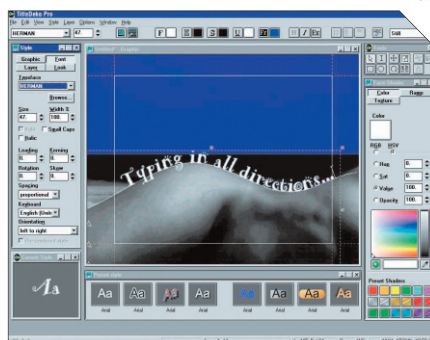
The plug-in runs on top of the editing application. Like TitleMotion, TitleDeko Pro is reminiscent of Pinnacle's heritage in broadcast character-generation market. You start off by creating a static graphic, roll (vertically rolling text and/or graphics such as conventional credits), crawl (right to left scrolling text) or reveal (text-only typewriter effect) – and then go on to turn it into the style you wish.

TitleDeko offers the standard text functions with controls over scale, skew, kerning, leading, justification and rotation – plus the usual colour, texture and gradient dialogs. It includes many useful features including unlimited layers and undo, support for international characters, spell checking, find-&-replace text, and text on a path with bézier curves.

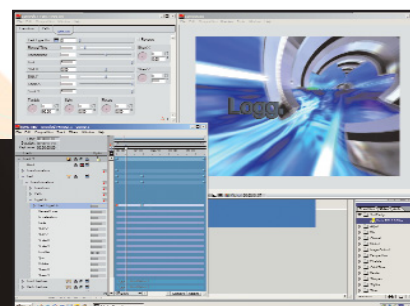
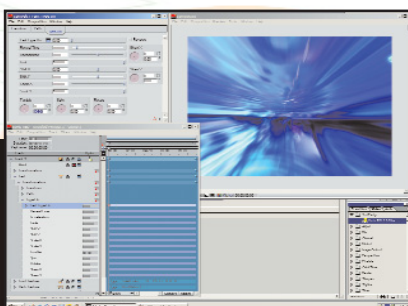
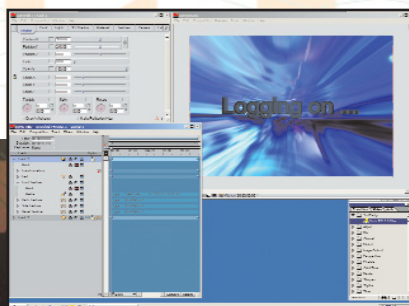
The plug-in features a large number of preset styles for those in a hurry and allows you to create your own 'house styles'. User can also bring in any graphic as a custom typeface, allowing all text

effects from shadows and glows to scale and skew to be used on them. However, there are no animation effects apart from the traditional roll, crawl or reveal.

Like a number of other Pinnacle products, the documentation is poor with, for example, page numbers missing from cross-references. The manual does have an index (unlike Commotion) but the page numbers listed are wrong.



BORIS GRAFFITI: TYPE RIGHT WITH A TEXT TYPEWRITER



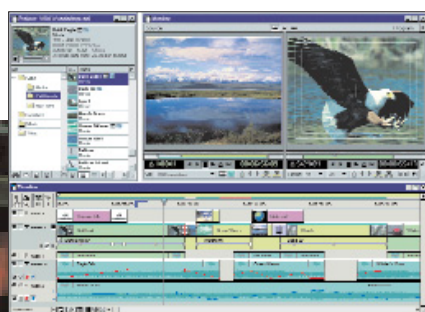
Typewriter text prints each character in turn as if typed on a computer screen. This has many uses from cheesy cyberspace effects to adding text to footage of a computer screen to get round refresh pick-up or the inability of an actor to type. To create this effect, first create your text, which can be of any type. Select the Face track under the text track, move

to the point in the Timeline where you want the text to start to appear and select Type On Text in the Controls window. Set Text Type On to 0, the interpolation to Ease In/Out and Tumble to 90 degrees. Select the point on the timeline that you want the text to have finished appearing, and change the Text Type On to 100. The text will now appear one letter at a time.

PRODUCT	Graffiti	Power CG Plus	India Titler	TitleMotion 4.2	TitleDeko Pro
Price	£375 plus VAT	\$495	\$339 (Pro version \$879)	£465 plus VAT (Premiere plug-in £250 plus VAT)	\$350
Type	plug-in/standalone	plug-in/standalone	standalone	plug-in	plug-in
Works with	Premiere, After Effects, Edit, Speed Razor, iFinish, Fast Studio, Avid	Premiere, MediaStudio, Speed Razor, DPS Velocity	N/A	Premiere, Edit, DPS Velocity, Speed Razor, iFinish	Premiere, Avid
Supported fonts	TrueType, PostScript	TrueType	AFD	TrueType	TrueType, Unicode
Text & graphics	●	●	○	●	●
Text on a path	●	●	●	●	●
3D text	bevel, extrude/composite	bevel	○	bevel	bevel
3D space	●	○	○	●	○
Text on 3D objects	●	○	○	○	○
16-bit colour	○	○	●	○	○
32-bit colour	○	○	●	○	○
Anti-aliasing	●	●	●	●	●
Templates/styles	●	●	●	●	●
Spell checker	○	○	○	●	●
Text file import	●	○	○	●	○

● Yes ○ No

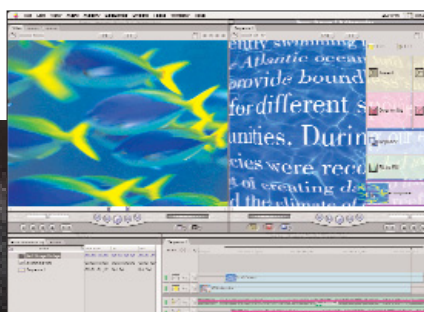
ALTERNATIVE TOOLS FOR CREATING TITLES



Premiere 6.0

Price: £459 plus VAT
Company: Adobe, www.adobe.co.uk
Contact: Adobe, 020 8606 4001

The surest sign of the quality of Premiere's titling tools are that even the cheapest hardware solutions usually bundle one of the major titling plug-ins (if only a lite version). There are good basic features such as roll/crawl support, independent character formatting and shadowing but little else. Being part of the application, it's also fully integrated.



Final Cut Pro 2

Price: £706 plus VAT
Company: Apple, www.apple.com/uk
Contact: Apple, 0800 039 1010

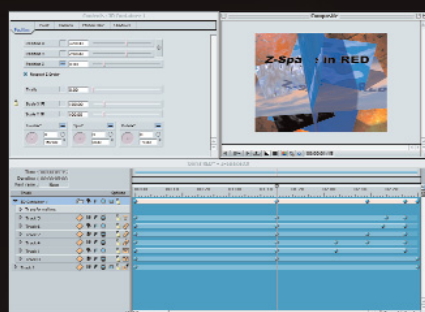
Final Cut Pro's tools are almost as basic as Premiere's. It does include sub-pixel accuracy and a good set of preset generators for creating scrolling text for credits, typewriter-style typed text and lower-third titles for subtitles and the like. However, it's missing useful tools such as independent character formatting.



After Effects 5.0

Price: £525 plus VAT
Company: Adobe, www.adobe.co.uk
Contact: Adobe, 020 8606 4001

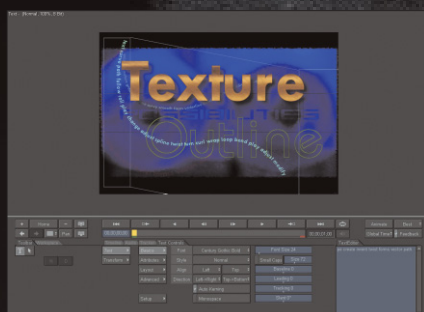
After Effects' text tools offer a standard DTP-level of control over text size, font, kerning, leading – with the added bonus of these being keyframeable. Apart from text (which supports bézier curves) on a path, there are no specific text effects. Most conventional text effects can be replicated using AE's standard compositing tools, though.



Boris Red 2.1

Price: £1,445 plus VAT
Company: Boris FX, www.borissfx.com
Contact: Polar Graphics, 020 8868 2479

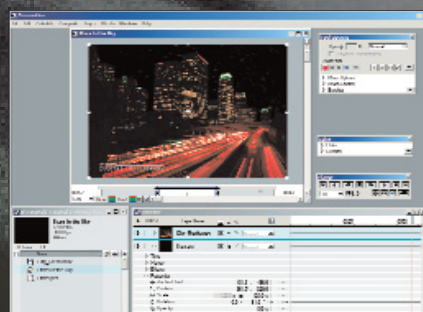
Including all the same features as Boris Graffiti, Red has titling as just one weapon in its arsenal. At its centre is a full 3D environment where objects can be set up alongside lights and cameras with full shadowing. Built around this are features including rotoscoping, motion tracking, colour correction, keying, distortions, noise filters and particles.



Combustion 2

Price: £2,695 plus VAT (Upgrade £595 plus VAT)
Company: Discreet, www.discreet.com
Contact: Datech 2000, 0800 181 738

Combustion's text tools look impressive. They include being able to edit each character independently and use text as brush elements. There's also support for both PostScript and TrueType fonts, Arabic and Asian characters, text on a path (with bézier curves), metadata support for creating timecodes and even random numbers.



Comotion 4.0

Price: £372 plus VAT
Company: Pinnacle, www.pinnaclesys.com
Contact: Pinnacle, 01895 424 228

Comotion's titling tools are advanced. As well as providing basic text controls that can be animated using the application's standard tool, Comotion provides text on a path (with bézier curves, motion blur and configurable drop shadows if you wish). There are also many scrolling options including aspect ratio and field rendering for less flickery small fonts.



Super furry mammals: Glassworks' Aero mouse learns new tricks

By Lynn Wright

The second commercial in a series of three for Aero chocolate bars sees Glassworks' super furry performer – created in Softimage3D and its own FurShader software – learn cool new moves and gain friends.



The character of the mouse in the second commercial was conveyed its lighter, fluffier fur, more delicate eyes and longer hands.

The concept of cuteness took on a new guise earlier this year with a commercial for Nestle/Rowntree that saw the confectionery giant join forces, not with some winsome kid or playful puppy but with the smallest of small performers – a mouse.

In the 30-second commercial for the bubbly chocolate bar Aero, a fully computer-generated mouse performs an elaborate hula-hoop dance to entertain a businessman buying Aero at a newsagent kiosk.

Responsibility for creating the animated 3D mouse was given to London post-production house Glassworks. Specialists in the field of digital effects and 3D modelling and animation, Glassworks was invited to collaborate on the project by production company Passion Pictures.

Collaborative effort

"We saw an opportunity to pair our traditional character animation skills with the 3D modelling and computer animation expertise at Glassworks," says Andrew Ruhemann, Passion Pictures' executive producer. "We were particularly impressed by their ability to generate realistic fur using their own proprietary software. Previously fur has been a bete noir of the computer animation industry, but we are delighted with this result."

The partnership extends across a series of three

Aero commercials; the second of which – for new Honeycomb Aero – has just aired and features many more furry friends of the original mouse.

Key to the success of the commercials has been the creation of a realistic, yet appealing mouse. According to Alastair Hearsun head of 3D at Glassworks, the CG mouse in the film *Stuart Little* had set a very high standard. For the Aero mouse, Glassworks dispensed with clothes and went for a more realistic approach that actually moved like a real mouse.

"The challenge was to create a mouse the audience believed was real," says Hearsun. "He had to move like a real mouse with realistic proportions and features. The look had to be spot on, taking into account all of the restrictive depth-of-field and motion blur you would get when shooting something that small on film. Our proprietary fur software, which allows us to produce high-quality, photorealistic fur, helped us to achieve outstanding results."

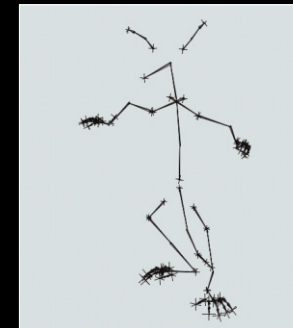
The 3D animation and modelling for the first commercial took six weeks and was created using Softimage3D and Glassworks' FurShader, running on SGI Octane workstations. The animation was then composited/edited into the live action using Inferno.

Hearsun began by creating some models in Softimage3D based on photographs of the preferred

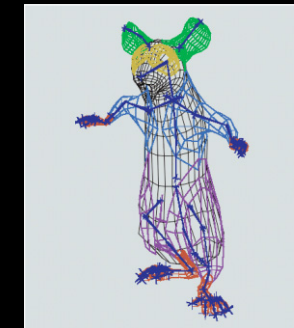
Glassworks FurShader: creating the Aero mouse



The mouse is built of separate NURBS patches with the exception of the hands and feet which are made of subdivision surfaces.



The skeleton is centred around the waist with IK used for the arms and legs and forward kinematics for the rest. The arms and legs are two-bone skeletons whose orientation is controlled by up vector constraints. This avoids any unpredictable behaviour common with longer skeleton chains when used with IK.



The skeleton in the body. The arms and legs are constrained to single bone shoulder and hip skeletons respectively. The root of the foot is located around the toe area and the effector is at around the heel/ankle. The effector of the leg is constrained to the effector of the foot. This allows a good deal of flexibility in leg/foot animation.



This shows the various separate hair control objects: one per NURBS object. The actual rendered fur produced by the software interpolating between the control strands.



The wireframe with a crude shaded rendition of the mouse.



A roughly shaded rendition of the mouse.



A basic shaded version of the mouse with the fur control strands.



A combination showing how it is built up.

mice collated by the Passion Pictures' team. The models went through many revisions during the development period in order to get the figure and character just right. Working from photographs, observations of live mice and even a dead stuffed specimen, Hearsun laboured hard to get the right balance of realism and character.

"Doing it again, I think we would start with a mouse sculpted in clay by a character artist," he says. "I'm trained as a fine artist and one of main interests when I was still using paper was characterization, but until the interface to the software becomes more transparent, designing on the computer is not the most efficient way of working."

As it wasn't a complex model, creating the mouse in Softimage3D was straightforward says Hearsun.

"Ideally, I'd have used subdivision surfaces – or metamesh as it's known in Softimage – to build the model, as this would have resulted in a one-piece object which would have made fluid animation easier," he says. He used separate NURBS objects for mouse's arms, legs, ears, tail and so forth because Glassworks' FurShader software at present only works with NURBS.

"Softimage's feature of allowing you to use

boundingboxes associated to individual skeleton joints for vertex weighting made skinning the creature quite simple and, more importantly, repeatable. If, for example, I needed to alter the head in some way, add some more vertices and change the shape, I could reskin the whole creature with the press of a few buttons in a matter of five minutes," says Hearsun.

Realistic fur

Glassworks' FurShader was used to create the mouse's realistic fur. Developed in-house over the past three years, FurShader works as a Softimage3D plug-in that lets 3D artists create an unlimited number of individual hairs on a model's surface. Variables such as tip and root colours, density, the thickness of individual hairs and the amount of tapering per strand can be manipulated for a more realistic effect.

"All our fur is fully raytraced, so it can cast shadows including self shadowing, and can also reflect. As it's rendered at the same time as all the other objects in the scene, and it has own built-in anti-aliasing, there's none of the problem we've encountered in post-render produced fur such as Maya's fur," Hearsun says.



The fully rendered mouse without motion blur or cast shadows.



All the fun of the fur
Glassworks own FurShader technology allowed Hearsun to fine tune the mouse fur for a more realistic rodent.



Although he does admit that the styling tools for fur in Maya are better than those of FurShader.

Once the model was finished, Hearsun began working with the live-action footage, tracking the camera moves by hand.

Meanwhile, Passion Pictures 2D animation director Alyson Hamilton and visual-effects director Chris Knott produced a series of drawn pencil tests during which the choreography of the mouse dance was decided. A large part of the six-week production was spent on refining the animation. While under pressure to hit key points in the animation with specific poses, Hearsun was keen to make the animation as fluid and as natural as possible.

Technically, motion blur was a bit of a problem when it came to the animation. "It's a problem with all fur," says Hearsun. He resolved the issue by stretching the animation by a factor of 50 and then rendered every second 25 frames. These groups of 25 frames were then averaged down to one frame. "This gives the effect of a 180 shutter and gives true rotational motion blur, a big improvement over the linear blur that you get when motion blurring conventionally," he says.

Aero mouse - take two

The second commercial, with its host of furry characters and singing oriental mouse, presented even more challenges for the Glassworks team.

The commercial opens with a delivery man dropping off new Honeycomb Aeros to a newsagent along with a hundred 'promotional items'. The newsagent is shocked and complains that no-one wants mice. He opens a cupboard to reveal over a hundred mice, caught mid-hula. A Taiwanese mouse sings Chinese opera accompanied by an elaborate oriental dance ending in a kung-fu style pose with one foot in the air and both hands raised.

Unlike the first commercial with its sole mouse, the first mouse scene of this commercial had five full frontal mice in a cupboard. Due to FurShader's memory requirement, no more than two mice could be in any one scene fully furred up. As there was no interaction between the mice, Hearsun solved the problem by putting each mouse in its own scene.

The next two scenes features hundreds of small mice in the cupboards above. Initially, Hearsun thought he could get away without adding fur, but the effect, he says, was terrible. Glassworks' solution was to

render 17 variations of the mouse animation centre screen and over length.

"Being over length we could slip the sync and produce more variations and with a little colour correction we managed to get quite a variation. These were then duplicated and comped into the cupboard using Inferno," says Hearsun.

Delicate movement

Unlike the mouse animation in the first commercial, whose hula-hoop dance involved broad movements, the female Taiwanese mouse in the follow-up not only sang but performed an intricate dance.

Passion Pictures' animation director for the second commercial spent a lot of time researching the character of the mouse by watching hours of Chinese opera to ensure hand and feet movement were authentic. The draping of the mouse tail over its left arm, for example, reflects how the kimono is worn by the opera singers.

"This lady needed a lot more attention to detail and a steady hand to avoid looking ugly or weird," says Hearsun. "It's much easier to make a grotesque monster than something delicate and pretty. This true of any medium. So keeping my sanity while going through umpteen iterations was the main challenge."

A more feminine demeanour was created for the mouse in FurShader by making her coat much fluffier. Glassworks also gave her more delicate eyes, a smaller snout and a pinker nose, along more slender fingers. An extra joint in the back was also added to the 3D model to make the mouse more flexible in its movements.

These changes helped give the Taiwanese mouse her own individual look while still achieving the convincing movement of a real mouse that brings across her character.

Work has just begun at Glassworks on the third commercial, Hearsun won't give anything away other than promising the antics of yet more cute mice will have us chuckling again.

He's positive about the experience of working with Passion Pictures. "I think the combination of their animation skills and our skills at CG realism, blending with live action, compositing and R&D makes for a good combination. The proof of the success of the project has come in the form of loads more scripts featuring furry characterful creatures," he says.

Software

Softimage3D
Glassworks FurShader
Discreet inferno

Hardware

SGI Octane workstation

Details

Glassworks, 020 7851 0700

Animating with wolves: Tim Hope's *The Wolfman* bites back for Sony

By Lynn Wright

Charged by Sony to rework his five-minute animated short *The Wolfman* for its latest PlayStation 2 ad gave Passion Pictures director Tim Hope a project to sink his teeth into. *Digit* uncovers the details.



Smashing up planets and punching suns - *The Wolfman*

Characters and backgrounds were created by illustrator Bartek Kubiak. Tim Hope then scanned these into 3DS Max, cut out, extruded and animated them.

If you've been to the cinema in the last month or so you may have seen a striking 60-second commercial for Sony PlayStation 2. Directed by Passion Pictures director Tim Hope, the commercial entitled *The Wolfman* is essentially a reworking of Hope's multi-award winning short film of the same name.

The commercial tells the story of an astronomer who muses about how much more exciting his life would be as a werewolf, "a man dog, a hairy person". Transformed into a terrifying dog figure, he boards a rocket and rampages through the universe "smashing up planets and punching suns". Its message is that PlayStation 2 games players will be transported to equally vivid and ultra-real states, and possess similar superhuman powers.

Home alone

As the original five-minute film was created with no funding on a home computer, the main challenge of the project was to maintain the power and energy of the original within a much shorter time frame and in the context of a cinema presentation. This involved re-recording the sound in Dolby surround sound and re-rendering the animation to film resolution.

The idea for using Hope's short film as a commercial for Sony PlayStation 2 came from Graham Cappi, a creative for the TBWA agency. Having seen the *The Wolfman* on a late-night Channel 4

animation special, Cappi brought it to the attention of Sony staff who were immediately sold on the idea.

The original short began life as a series of sound recordings from some sound performance pieces that then unemployed Hope and his friend Waen Shepherd has created. Hope went on to create the animation as a showcase of his film-making skills, in order to have something he could send to the film festivals.

"It's important to emphasize that *The Wolfman* was actually a sound piece a long time before I'd ever even thought it might be an animation," says Hope. "I had been playing with digital sound, and had found it a really natural way to start getting into computer animation. I think the type of mind set it takes to work a midi sequencer is actually very similar to the type of mind which plays around with boolean splines and expression controllers in 3D animation world," he says.

According to Hope, sound is a good, cheap way of storyboarding a project. "I always start with the sound before I do anything," he says. "Having done the sound edit, you'll have a 95 per cent picture of how good something you're doing is."

Although created in Discreet 3D Studio Max, *The Wolfman* clearly shows the influence of traditional animation. Eastern European illustrator Bartek Kubiak was responsible for producing drawings of the characters and the backgrounds, which Hope then scanned in, cut out and extruded in 3DS Max. Kubiak created colours and textures in Corel Photo-Paint, says Hope, including "a really nice spray can paint effect that gave the colour more depth."

The Wolfman's energy and drama is heightened by clever use of film techniques such as varied pace, lighting effects, and use of shadows.

Software

Discreet 3D Studio Max
Discreet Flame
Adobe Photoshop
Corel Photo-Paint

Hardware

PIII 233MHz PC with 64MB of RAM
Apple Macintosh G3 with Miro card
Dual Pentium workstations with 1GB of RAM on each for rendering

Details

Passion Pictures, www.passion-pictures.com
020 7323 9933





Energy and sense of tension in *The Wolfman* comes from the accompanying sound track as well as clever use of lighting effects, shadows and camera movements.



Tight production schedule

Hope spent just three weeks re-editing and re-rendering his original film for its cinema debut.

For example, the lighting effects, applied during the set piece of the astronomer's transformation into a wolf, were created by Hope pressing the "misty lighting" (volumetric light) button along with switching on shadows. Camera shake in another scene was achieved by applying a random noise value to the camera target.

Pure 3DS Max

"Another little trick I discovered was making the lights in the scene flicker a bit with a noise controller value attached to the strength of the light, says Hope. "The effect could probably have been achieved using one of those film effect plug-ins, but I liked the purity of doing it all in Max."

With a tight schedule of just three weeks, re-editing and re-rendering the animation to just one fifth its original size for the commercial presented some challenges and dilemmas for its creator.

One welcome effect of such a brief production period was the fact that the client was happy to leave the ideas and work in Hope's hands. The original script had to be tweaked slightly to make the voiceovers in the film more even. "To give it a kind of smooth bézier curve-type emotional ramp from start to finish" explains Hope. "Sony didn't have much time to brainstorm and research these new ideas that Waen and I were coming up with, so things went along really quickly."

The original *Wolfman* was created on a PIII 233MHZ PC with 64MB of RAM and 4GB of hard disk space, and an Apple Macintosh G3 with a Miro card used for editing. To re-edit and re-render the piece for cinema presentation, Hope has a whole bank of dual-Pentium rendering PCs with a 1GB of RAM on each.

"It's very satisfying revisiting a project from two

years ago with state-of-the-art machines and a much bigger budget. It's like using a sledgehammer to crack nuts... very satisfying," says Hope.

Hope had used low-resolution JPEG scans in the original animation, and having to re-render these at 2,000 lines for cinema presentation introduced a few problems.

"But, a bit of cleaning up in Photoshop using true fractals seemed to solve most of the problems," he says. JPG compression lines were also removed by repainting and using median blurs.

The final post-production work was done on a Discreet Flame suite, and involved desaturating the animation, adding a yellow tint and some small blurs. Yet, Hope was far from impressed with this high-end tool.

"It was the first time I'd used Flame and I can't say I was that impressed... it just didn't strike me as that amazingly fast. My dual Pentium with Combustion on it could have done the job I reckon," says Hope. "In fact, I could have bought another five for the price of one day's hire of a Flame suite."

According to Hope, one area of the post-production that was affected by the tight production schedule was remixing the audio for Dolby cinema sound presentation. Further remixes have been done for the television version and future cinema releases.

Feedback from Sony has been so positive, it has extended the campaign. Passion Picture's executive producer Andrew Ruhemann says, "It's unusual for a short film to be used directly to make an ad and it proved to be an inspired idea. The 60-second burst really accentuates the energy and dynamism of the original Tim made in his bedroom two years ago and we're all stunned by the results on the big screen."



Tongsville in a Flash: Preloaded creates a online virtual world

By Lynn Wright

Film and video producers Hammer & Tongs wanted a Web site with a difference, as quirky and as different as the work it produces. *Digit* finds out how Preloaded delivered the goods in a fun and functional site.

Software

Adobe Photoshop 6.01
Macromedia Flash 5
Sound Forge 5.0
Flix 1.52

Hardware

600MHz Pentium 2 PC
500MHz Pentium 3 PC
1.2GHz Pentium 3 PC
1.4GHz Pentium 4 PC
Apple Macintosh G4 350MHz
Apple Macintosh G3 PowerBook

Details

Hammer & Tongs, www.tongsville.com/city
Preloaded, www.preloaded.com
0207 684 3505

Take a trip to Tongsville... there's a train departing now to take you to a brave new online world courtesy of Web-design agency Preloaded. Created for film and video producers Hammer & Tongs, best known for its music videos for Blur, Moloko, and REM, Tongsville is a city that's meant to visualize the goings on within the creative world of the Hammer & Tongs team.

Created in Macromedia Flash, the city is a true microcosm of life. Tongsville's weather is set to be the same as that in London, using a back-end system that regularly collects and interprets accurate weather reports from a satellite feed. This information then triggers the appropriate elements, affects them with wind direction if appropriate and sets the severity of the conditions. The length of each day and night and even the phases of the moon are also set to mimic the real world. The code calculates these based on the longitude and latitude of Hammer & Tongs' actual offices.

Like an online version of the games *Populus* and *SimCity*, visitors can interact with the city of Tongsville and its citizens. You can stroll along the street and enter any of various buildings along the way. These take you to sub-sections of the site where you can watch Hammer & Tongs' latest videos, catch up on

news, contact the company or buy branded items.

By pressing 'g' on your keyboard, you enter 'God mode' and can start playing with time and the elements including the weather. The site rewards those that spend time in the city, with a host of random events taking place according to the time of day and what the user interacts with.

Both the client and developer wanted the site to be as different and quirky as possible while pushing the medium technically and creatively.

"When we first met up with Hammer & Tongs, they were clear that they wanted us to provide direction both technically and creatively," says Paul Canty, general director of Preloaded. "They had no online experience and looked to us to advise them, which made the brief really loose."

The main requirement of the site was to convey the spirit and nature of the Hammer & Tongs brand and the client had various different functions it wanted to realize on the Web, such as examples of work, Holdmusic and branded merchandise sales. This meant Preloaded had to develop a site structure that would focus on the core business of film and video production yet be able to envelope the other disparate elements.

Two proposals for the site structure and navigation



were put forward to the client – one that was based around a game and the second being the city metaphor for a living environment. Hammer & Tongs preferred the city "as a world of their own" says Preloaded's technical director Garry Samett.

The horizontal navigation system allows for expansion in the city in the future. This will be funded, says Canty, by partners and third parties who can buy space currently under construction and commission a new development from Preloaded, or move into one of the existing empty buildings.

Having decided on a city scene and how content would work best within that environment, Preloaded spent time brainstorming what interaction to offer the user, what visual and aural events to play with, and how to visually handle the actual interiors of the buildings.

Placeholder assets

The first thing the team did was to develop the basic code systems – weather, parallax scrolling, and day/night conditions – using placeholder assets. "We had to be sure that everything was possible and not too over-demanding of any machine it was run on," explains Rob Corradi, creative director of Preloaded.

A simple city visual was mocked up for client approval and became the blueprint for the more detailed urban landscape of the finished site. The look and feel of the city was influenced by a *Rampage* arcade machine Preloaded had in its office, which Hammer & Tongs has since bought as a memento.

According to Samett, Macromedia Flash was chosen as the main development tool because of its "fairly powerful coding language that let us control sound panning and levels, and the time-based graphics."

"Considering what we wanted to achieve creatively from a visual and functional perspective, as well as looking at the experience from the user's point of view,



Preloaded built a browser based administration system which meant Hammer & Tongs staff could update the news page from anywhere in the world as well as easily update the dynamic Flash files.

Flash was definitely the ideal way to go," he says.

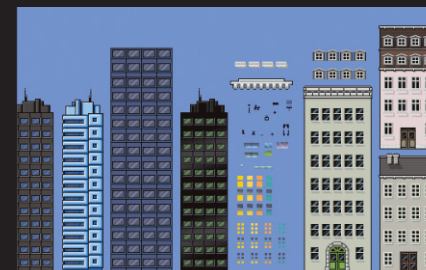
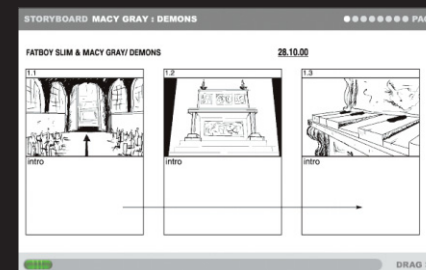
The only drawbacks to using Flash according to Samett was the application's inability to play back video as QuickTime directly in the fully interactive environment. The Preloaded team had to transfer the video into Flash then write code to play the video as it downloaded, mimicking QuickTime and Real video functionality.

Some areas of the site such as the shop were executed purely in HTML as Hammer & Tongs didn't want to risk losing sales because people were waiting for a Flash movie to download. Instead, Samett and the team used JavaScript and GIF animations to mimic what they could have done in Flash.

Preloaded also created a browser-based administration system using Perl and PHP so that Hammer & Tongs can easily update the content. For the news page, a system was created that combined a templated HTML page with a simple database to allow Hammer & Tongs to post news items wherever they happen to be. A front-end lets them upload images, as well as edit and create new news articles. A basic custom mark-up language was implemented to simplify direct links to the cinema movies and storyboards.

Hammer & Tongs can also update the Flash files for the dynamic content such as the billboard, cinema films, and text without having to upload using FTP software thanks to a secondary browser admin system.

A small core team of five worked on the development of the site and details were added and additional ideas implemented "making it a very fluid process" says Canty. "Hammer & Tongs were the ideal client in that they were keen to give things a go, and trusted us to go forward with ideas and see what we could do," he says. "Luckily we've very similar attitudes to our work output, and we think the sense of fun really shows through with Tongsville."



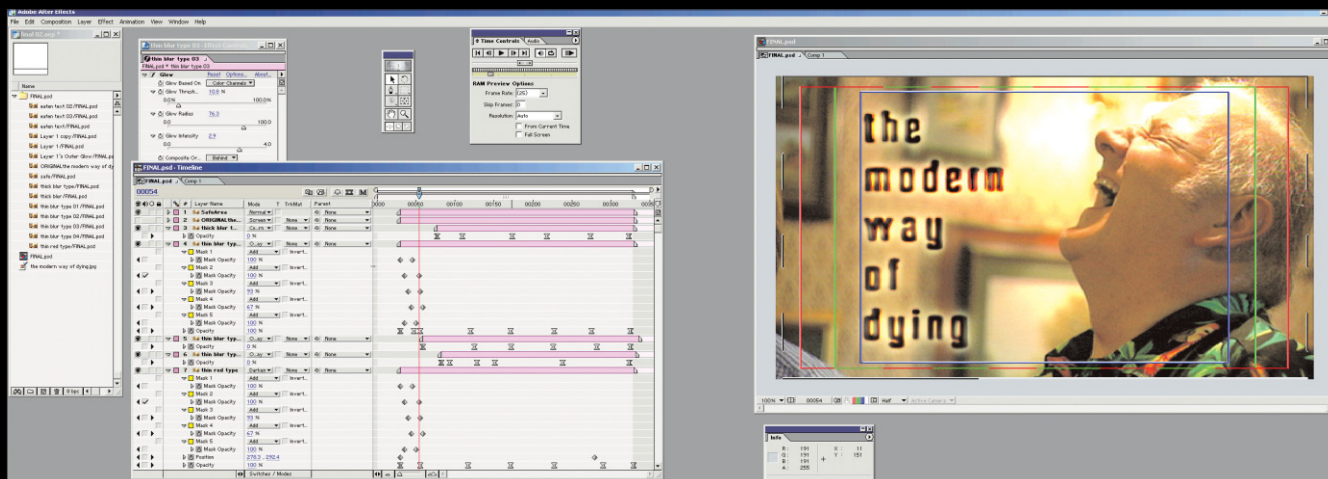
Brainstorming the development
Careful planning was required to devise a way to tie together the disparate elements of the site.



Keyframe goes with the glow

By Lynn Wright

Leeds-based agency Keyframe used Photoshop and After Effects to create a title sequence with a soft glow that reflects the sensitive subject matter of the BBC *Everyman* programme *The Modern Way of Dying*.



One of the programmes in the new series of BBC *Everyman* documentaries, *The Modern Way of Dying* looks at the relationship between developments in technology within medicine and the effects of this on patients.

Screened in October, the programme asks "Does the advent of modern technology used in the medical field, which can now predict and detect terminal illness, mean that the people who are diagnosed as terminally ill get any closer to understand what death is all about?"

Creating a title sequence for the programme involved the challenge of matching the sensitive nature of the documentary with an effective eye-catching design. Leeds-based production company Keyframe was commissioned to do this by the BBC on the strength of previous title sequences it had done.

A question of budget

While the brief from *Everyman* producer Jane Beckwith was quite open, the budget was limited, so Keyframe had to produce an interesting title sequence and logo that looked fantastic, yet didn't cost a fortune. "It's a common dilemma," says Stuart Houchin, Keyframe's designer/ animator.

As the subject matter of the documentary was about dying, the Keyframe team decided, says Houchin, to "create a sequence that brought the type on in a gentle, almost ethereal way, reflecting the much documented 'glowing light at the end of the tunnel' of a near-death experience."

To that end, a selection of type styles were chosen, which were then presented to the producer. Once a typeface had been chosen, Keyframe digitized the live action sequence from the programme over which the titles were to run.

"There were areas of light and dark in the final image over which the titles had to work and



Handpainted glows
Stuart Houchin of Keyframe used animated masks, glows and light effects in Adobe AfterEffects to achieve the desired look for the title sequence.

be legible," says Houchin. "The challenge we faced was that if you use a dark tone it wouldn't be legible over the dark areas and if we used a light tone it wouldn't be legible over the light areas. We resolved this by using a soft-glowing blurred effect behind the type to enable it to work over whichever background."

Houchin used Adobe Photoshop to create the initial type layers and visual effects. "It's the most flexible software available," he says. "I really like the transfer modes for achieving different effects and it is very quick to explore different styles." A variety of glow and blur effects were used to create a soft, ethereal approach to enhance the transformation of the title build-up.

Houchin also used a combination of animated masks, hand-painted glows and light effects in Adobe After Effects to create the animation on the pre-designed layers from Photoshop.

Keyframe has repeated its success for another *Everyman* documentary, *The Life and Lies of King Con* due to be aired later this year and is currently working for Channel 4 on a title sequence.

Software

Adobe Photoshop
Adobe After Effects

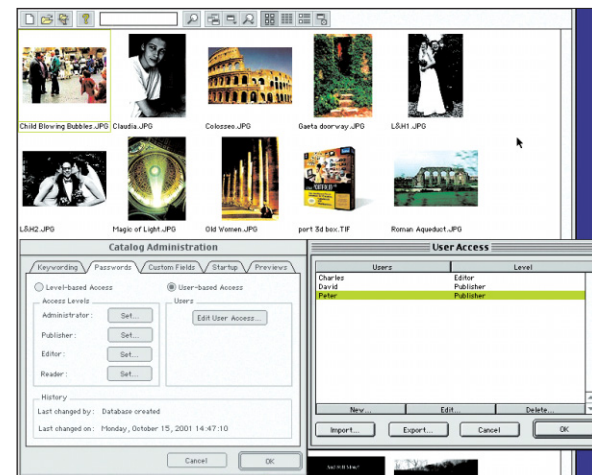
Hardware

Dual 850MHz Windows 2000 workstations
DPS Reality
Sony Digital Betacam

Details

Keyframe, www.keyframe.co.uk
0113 246 5913

EXTENSIS PORTFOLIO 5.0 – DIGITAL ASSET MANAGEMENT



Extensis Portfolio is a powerful and easy-to-use visual database that goes beyond a simple cataloguing tool. It can be used to publish content to the Internet via a runtime browser version, or through traditional client-server software.

In this Portfolio 5.0 tutorial, you will gain an understanding of the concepts, methodology and terminology used in the program.

We'll be making use of some content on the free Portfolio CD found in the Portfolio 4.0 folder – but if you prefer, you can start to catalogue your own content.

Software

Extensis Portfolio 5.0

Hardware

Mac and Windows PCs

Contacts

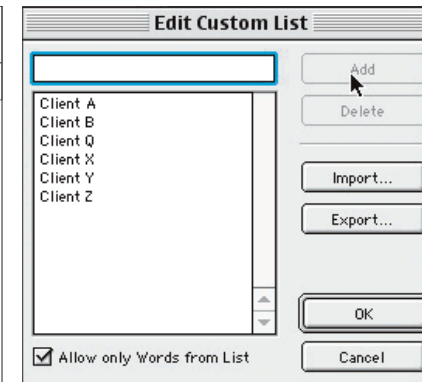
Extensis,
www.extensis.co.uk

CDigit 42



A FREE fully-working copy of Extensis Portfolio 4.0 is available on this month's second CD. This workshop uses Portfolio 5.0 – a demo of which is included on the CD.

STEP
5
→



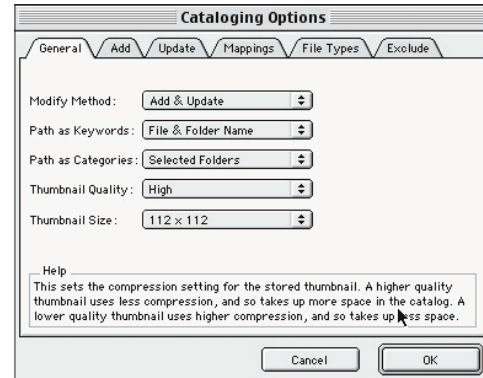
Portfolio lets you create custom fields either before or after the cataloguing process has started. To do this, click Catalogue>Administration, choose 'Custom Fields', then click 'Add'. Name your first field 'Client' and choose 'String' as its type. Check 'Predefined List' and 'Edit List'. Click on 'OK' twice.

STEP
6
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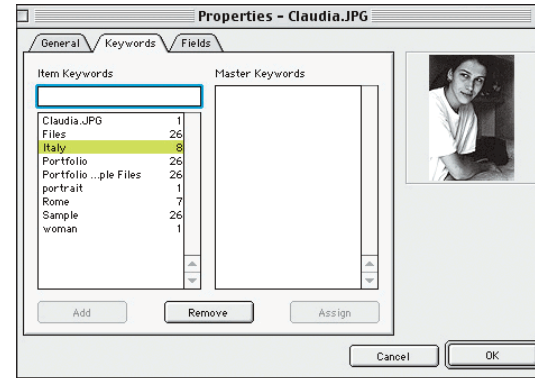
From the Catalogue Administration window, click 'Add' to create a custom field called 'Notes'. This field will be a 'Text Block' type. Click OK twice. Now, drag-&-drop a value against each record. Click on Window>Master Palettes>Show Client. Drag the new palette on to the master keyword palette to dock it.

STEP
1
→



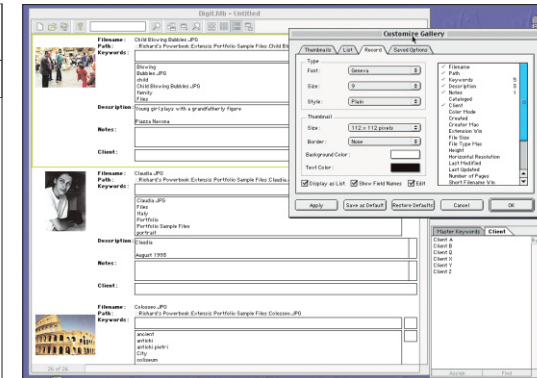
Create a new database, and name it 'Digit'. Save this to your desktop. Navigate to your sample files and drag them into the active Portfolio Catalogue window. A number of options are available in the dialog box. For the purpose of this tutorial, change 'Path as Categories' to 'Selected Folders'. Portfolio will immediately start cataloguing your content.

STEP
2
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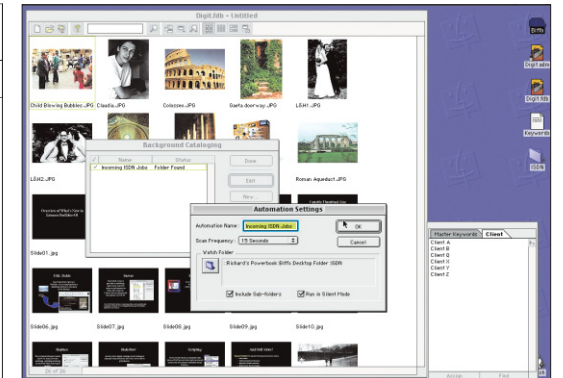
Portfolio generates small thumbnails of the original files; note that the originals don't move from their existing locations. The thumbnails appear together with any imported meta data. Click on 'Claudia.JPG', then choose Item>Item Properties. 'Italy' is one of the keywords, showing the number 8 next to it. This indicates that there are 8 items in the catalogue sharing that same keyword.

STEP
7
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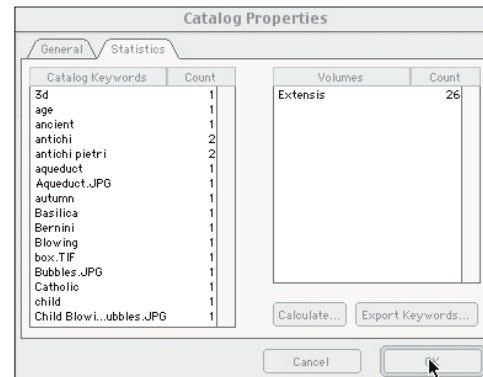
Portfolio comes with three views; each can be customized. In order to edit the 'Notes' field, we need a different view from the default 'Thumbnail'. Select View>Customize, tick the Display As List box and the Edit box, then select the two custom fields (Client and Notes). Click 'Apply', and then OK. To save a field, click or tab down to another field. The information is saved automatically.

STEP
8
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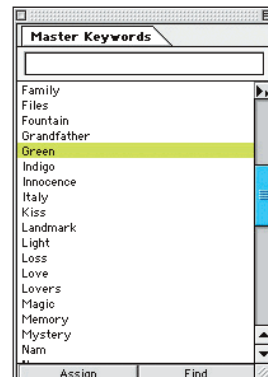
Portfolio can watch folders locally or across the network – to look at an incoming ISDN folder, for example. Create a folder on the desktop called 'ISDN'. Next, choose Catalogue>Background Cataloguing. Select 'New', and name your automation 'Incoming ISDN Jobs'. Set a 15-second scan frequency, tick the box 'Include Sub-folders', and click OK.

STEP
3
→



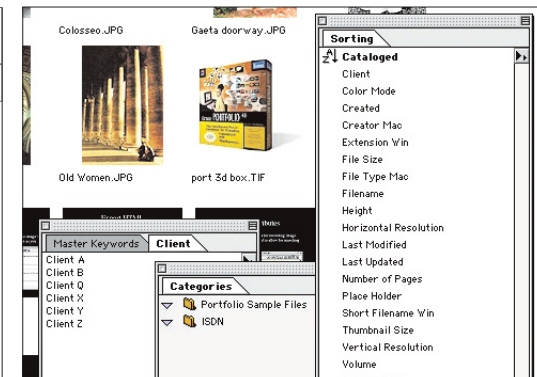
It's possible to add your own keywords or other custom field information to the database. To do this, choose Catalogue>Catalogue Properties>Statistics>Calculate. Save the exported text file as 'Keywords.txt'. We can then open this file up to add our own keywords. As a simple suggestion, add a few colours to this text list such as 'Red', 'Orange', and 'Green'.

STEP
4
→



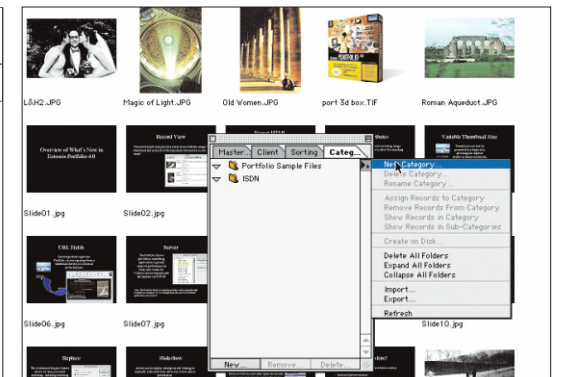
Select Window>Master Palettes>Show Master Keywords. A new window will appear – the master keyword palette. To import the list, select Catalogue>Administration. Under Keywords, click Import, and select the custom 'Keywords' text list. Click OK. To attach a keyword to a record, drag it on top of an item. Press Cmd (Mac), or Ctrl (Windows) to attach multiple keywords to multiple records.

STEP
9
→

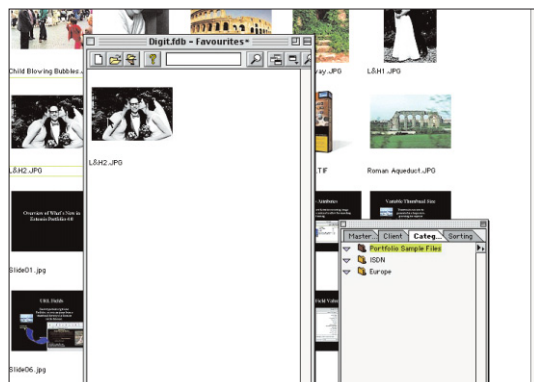


Portfolio offers a number of different palettes. Under the Window menu, you can choose to show or hide these palettes. Select 'Show Sorting', then 'Show Categories'. You'll notice two new windows: as before, these palettes can be docked into the master palette, freeing up screen space. By clicking on 'Sorting', we can search the content via 'File Size', 'Creation Date' and many other fields.

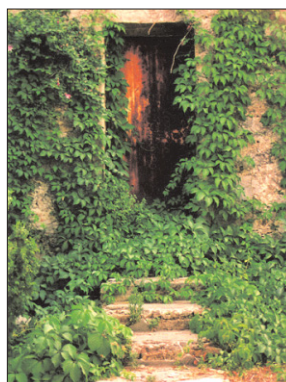
STEP
10
→



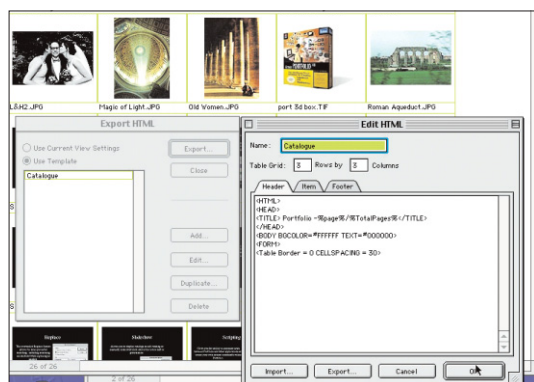
Notice that the 'Categories Palette' has folders that mirror the folder structure of your desktop. To create a new hierarchy, select 'New Category' from the palette window, naming it 'Europe'. From the main Portfolio Catalogue, select relevant European-type images, and drag the thumbnails onto the 'Europe' folder category. Double-click a folder to show its content.

STEP
11

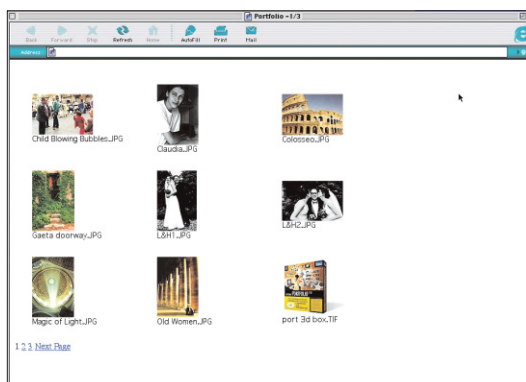
Galleries can be created to show a collection of items. A gallery is a sub-set of the master catalogue. To create one, select Window>New Gallery. Next, select Window>Save Gallery As. Name it 'Favourites'. Now you can drag content from the master catalogue into the 'Favourites' gallery. Drag the two wedding pictures into the gallery. On closing the window, save the gallery.

STEP
12

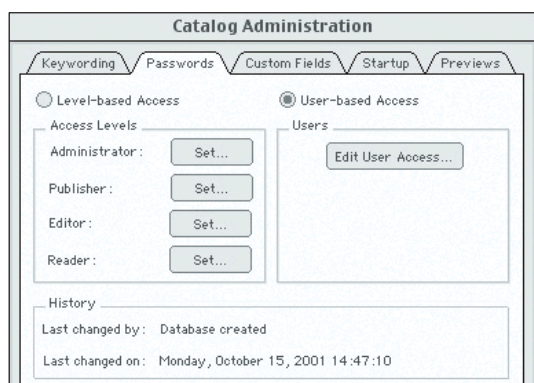
Looking closely at items with Portfolio can sometimes be better if the content is shown full-screen as a slide show. Portfolio's powerful translators can build up previews of large files very quickly, and the slideshow feature enables images to be checked for quality. To create a slide show, select Catalogue>Slideshow. Portfolio's built-in slideshow feature can be automated.

STEP
13

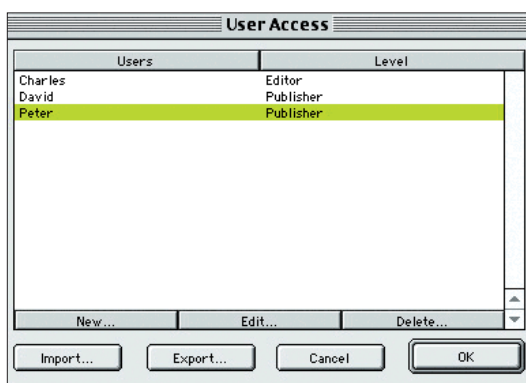
One quick way Macintosh users can export their content is to make a QuickTime movie from the stills from within Portfolio. Open your Favourites Gallery (Window>Show Galleries), double-Click the 'Favourites' folder, then click on an image. Now choose Edit>Select All>File>Export>QuickTime Movie. Choose Transition Effect to 'Cross Fade', and click on 'OK'.

STEP
14

Portfolio can also export its catalogue as HTML pages. They can be customized using professionally-designed templates, or you can edit them in Portfolio. We shall first select all the items in the catalogue by going to Edit>Select All. Now, choose File>Export>HTML. In the Export HTML window, click on 'Add' to create a display template, then in the 'Edit HTML' enter the name 'Catalogue'.

STEP
15

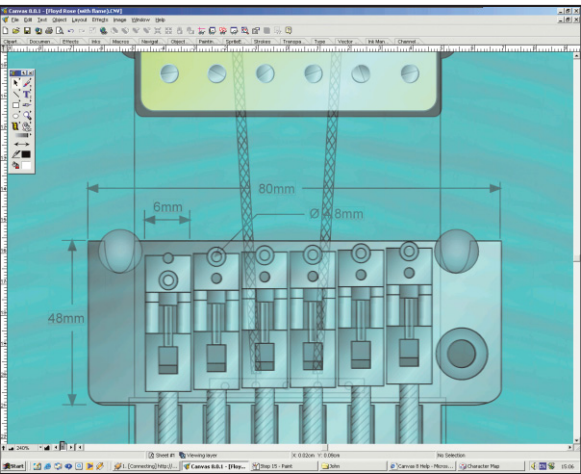
Set the table grid value to 3-x-3, then click 'OK', now click 'Export', and name your exported HTML page 'webcatalog.htm'. Save it to your desktop. Portfolio will create the necessary HTML files and images. To view your newly created Web pages, open the 'webcatalog.htm' file in your Web browser. Now it's time for some security: go to Catalogue>Administration, then click 'Passwords'.

STEP
16

Portfolio allows four levels of access. Reader level allows users only to view the catalogue. Editor level allows editing keywords, field values, and categories. Publisher lets users update the catalogue, and export as HTML. Finally, Administrator allows custom field and keyword list creation, and assigning access rights.

TECHNICAL DRAWINGS IN DENEBA CANVAS 8.0

By John Stewart



Deneba Canvas 8.0, as well as being a powerful painting and illustration tool, also excels at producing drawings of a more technical nature. This tutorial will walk you through the creation of a schematic diagram of a guitar tremolo system, using layers, transparency, and object properties.

You'll end up with a layered drawing in which layers can be hidden and reduced in opacity to give a full overview of the system's components.

Download the finished file from www.digitmag.co.uk/workshop.

Software

Deneba Canvas 8.0

Hardware and software requirements

Windows PC or Mac OS; Microsoft Excel

Contacts

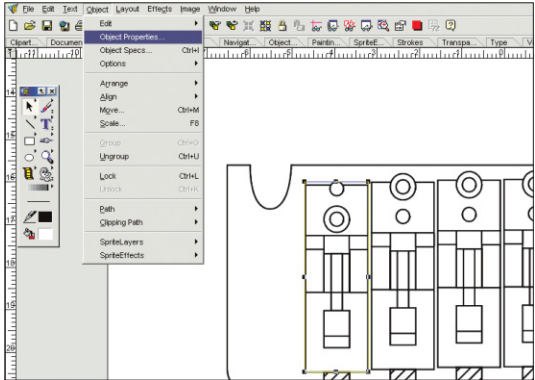
Deneba, www.deneba.com

CDigit 41

A full version of Canvas 6.0 and demos of Canvas 8.0 are available on CDigit #41, as well as a special upgrade offer to version 8.0. Missed it? Call Kelly Crowley on 020 7831 9252 to order it!

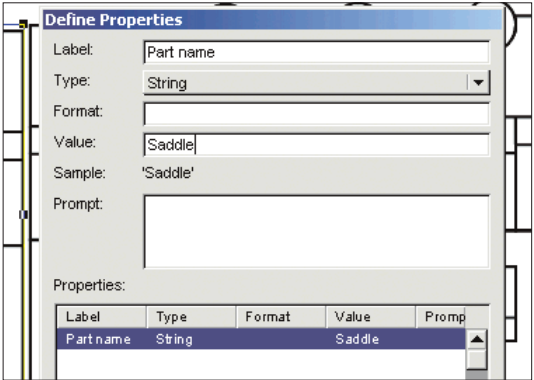


STEP 5
→



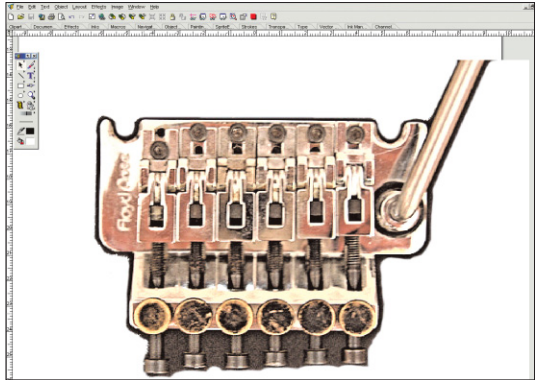
Going back to the 'Outline' layer, ungroup the main object. Now we'll isolate the parts. As shown in the screenshot (and the downloadable file), group one of the six string saddles. Make sure all the parts shown are included in the group. Now choose Object>Object Properties. We're going to name the various parts of the trem system, and also provide manufacturing and purchase information.

STEP 6
→



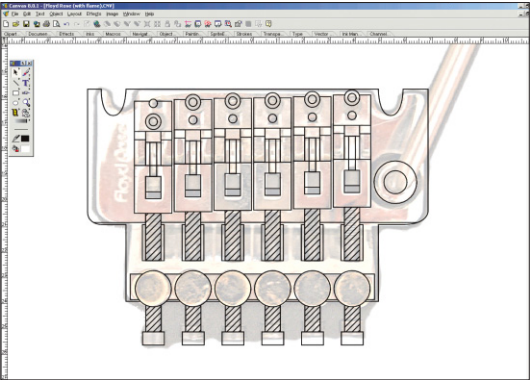
Making sure the string saddle is still selected, double-click the Object Properties palette to bring up the dialog box shown above. Click the New button. In the Label field, enter 'Part name'. Leave the Type as 'String', and the Format field blank. In the Value field, type the name of the part: 'Saddle'.

STEP 1
→



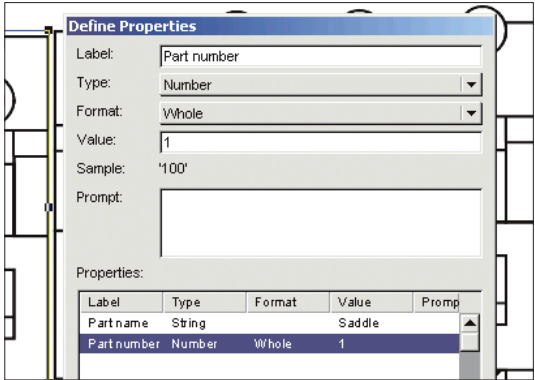
Begin with a tracing image. I used a low-resolution JPEG file. It required a bit of cleaning up before I began, though – there was a lot of material around the edges that needed removing with the Eraser tool. I also adjusted the brightness and contrast, and sharpened the image a little to bring out the finer detail.

STEP 2
→



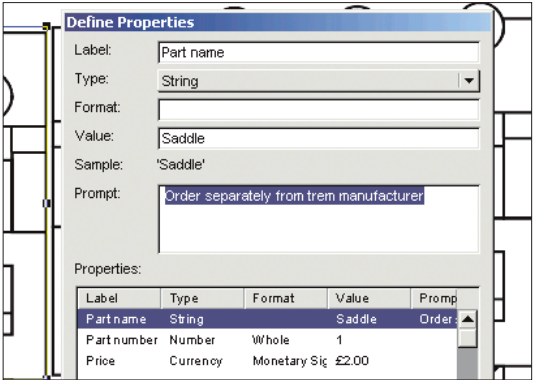
Place a white rectangle over the tracing image, and reduce its opacity a little. Now group the two, and name the layer they're on 'Tracing Image'. Create a new layer, and name it 'Outline'. On this layer, use the drawing tools to trace the important parts of the system. I used hatched fills for the screws. The outline isn't placed exactly over the photo due to perspective in the original image.

STEP 7
→



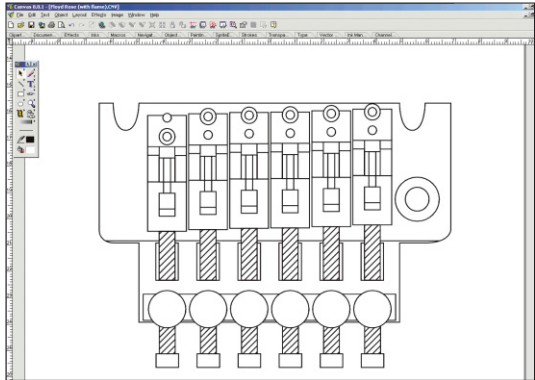
Don't click OK yet – we need to enter more information. Click New again, then enter 'Part number' in the Label field. Change the Type to 'Number', and the Format to 'Whole'. Give the saddle a part number.

STEP 8
→



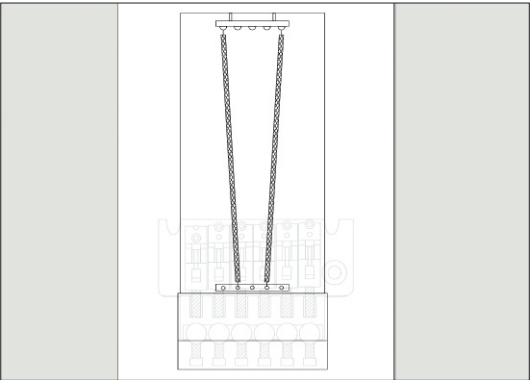
Continue entering relevant information for that particular part – I entered a Price Label, setting the Type to 'Currency', the Format to 'Monetary', and the Value to '£2.00'. Use the Prompt field to enter any other important information. Now click OK. Whenever you click on this string saddle with the Object Properties palette open, all the information assigned to it is displayed.

STEP 3
→



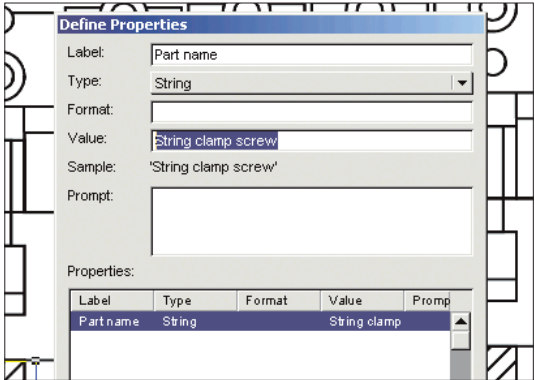
Now hide the Tracing Image layer; you won't need it again. Do any tweaking you need to do to the outline at this point; we'll be lining other elements up with it later, so it's important that you get everything perfect here. Group all the elements when you're done.

STEP 4
→



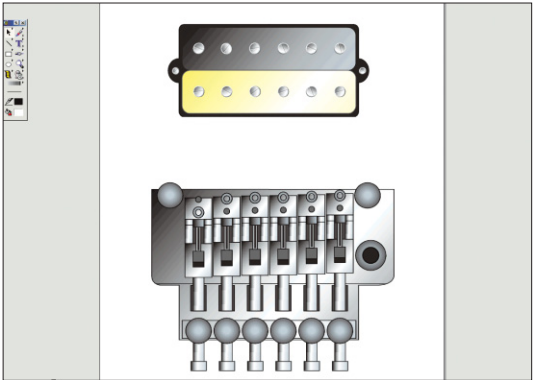
The bulk of a tremolo system sits on top of the guitar's body. The rest of it is hidden inside a cavity routed out of the back of the guitar. To show this, create a new layer under 'Outline', named 'Trem Cavity', and reduce the opacity of the 'Outline' layer to avoid confusion. Draw in the cavity, the recess in the front of the body, and the spring system. Group all the objects when you're finished.

STEP 9
→



Repeat steps 5 to 8 for all other parts in the drawing. Make sure that they're all grouped correctly, and that the correct information is entered for all the parts. If, like this example, your drawing contains many repeating elements, you might consider using the Object Library to store one copy of the object in question, complete with its information, then dragging copies of it onto the page.

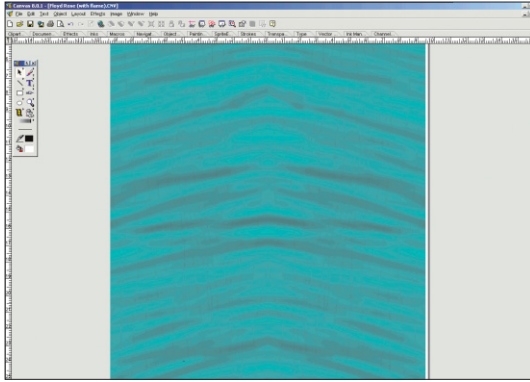
STEP 10
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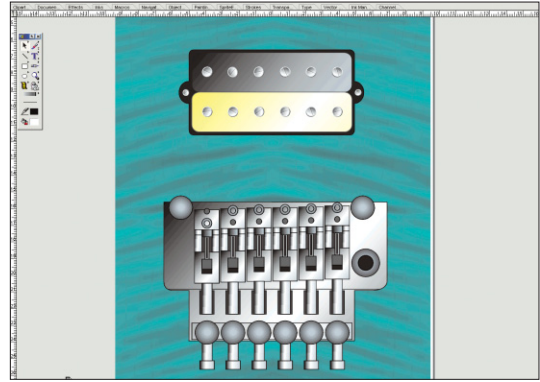
Create another layer called 'Trem and pickups', and copy the 'Outline' object onto it. Use gradient fills and solid objects to create a more polished version of the raw diagram; I added a pickup, too. Place this layer on top of the 'Outline' layer. Remember that, because this is a copy of the 'Outline' layer, all the defined properties will be intact – you can also use this layer as a guide to the system's parts.

STEPS 5-10 →

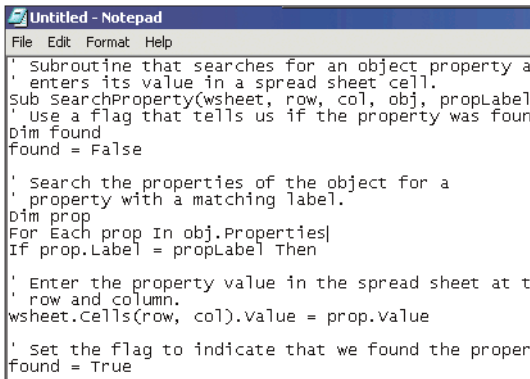
STEPS 11-16 →

STEP
11

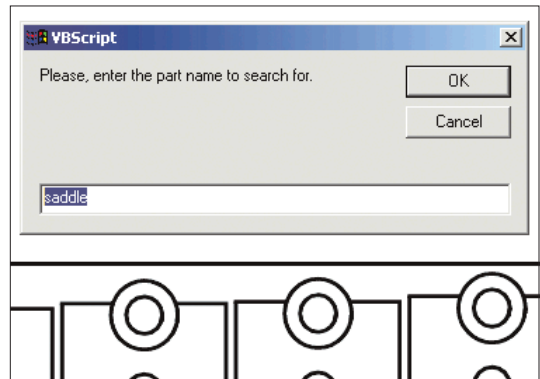
To create the flamed maple wood effect, I created a new layer called 'Body', then added a Painting Area half the width of the page, using the paintbrush tool with a variety of shades of blue and to simulate the wood grain. I selected the area, replicated it – press Cmd-Opt-D (Mac), or Ctrl-Alt-D (Windows) – then flipped it horizontally. The copy was moved to the right to create the 'bookmatched' effect.

STEP
12

Place the 'Body' layer between the 'Outline' and 'Trem and pickups' layers. Make sure the two paint objects are grouped. If you wish, you can render these out (Image>Area>Render), or leave them as two vector objects. You could also repeat the Object Properties steps to enter information about the type of wood used, its cost, colour, dimensions, and so on.

STEP
13

All the information we entered for the trem system's parts might be hard to keep track of – so a search facility would be very useful. Deneba provides the script on its Web site: go to www.deneba.com to download it. Change the 'PART NAME', 'PART NO.' columns and so on as necessary to fit your naming conventions, then save the document as a VBS file.

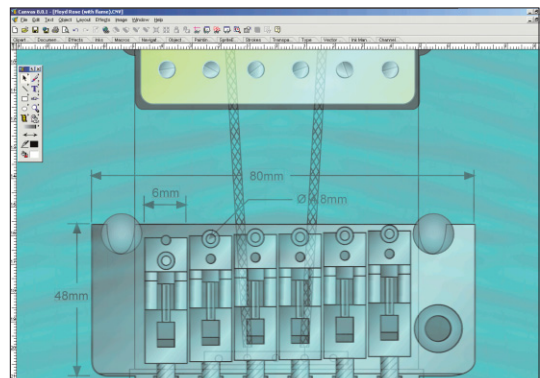
STEP
14

Double-click the script icon in the Windows Explorer to activate it. A dialog box will appear prompting you to enter the part name to search for. Enter, say, 'saddle', or 'nut'.

STEP
15

G5			
	A	B	C
1	Part name	Part number	Price
2			
3	Nut	5150	0.10
4	Nut	5151	0.15
5			
6			
7			

Click OK, and the relevant information you entered about that part in the Object Properties dialog will be compiled and displayed in a Microsoft Excel Spreadsheet.

STEP
16

The beauty of using Canvas for technical drawings is that, not only can you enter and compile detailed information about components used, you can provide photorealistic overlays of the finished product, and use layers and transparency to compile and print very complex drawings without having to create lots of separate documents.

Design solutions



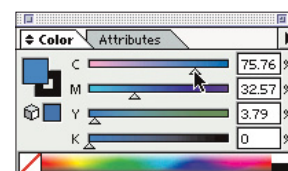
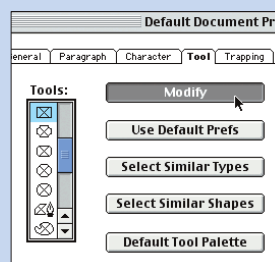
Tip of the month

Changing default tool settings in QuarkXPress

Digit's house style is to have a 0.25mm keyline around all images except cutouts. It can take a long while to put keylines on picture boxes individually, and even selecting them all and applying a global keyline involves a lot of Shift-clicking.

To make sure all your boxes have a default keyline (or any other

attribute, for that matter) that gets applied automatically when you create the object, close all documents, double-click the tool you want to change (in this case the Rectangle Picture Box tool), click the Modify button, then the Frame tab. Enter 0.25mm in the Width field, then OK out of the dialog boxes to set your new default.



Adobe Illustrator: Hold down the Shift key while dragging a colour slider to maintain a proportional relationship between colours.



Graphic design

Illustrator colours

If you want to keep a proportional relationship between RGB or CMYK colour values in Adobe Illustrator's colour palette, hold down the Shift key as you drag a slider. The other values will change relative to the one you're changing.

Customize Quark's tools

Some of QuarkXPress' tools are accessed by holding down the mouse button over a tool in the palette, then choosing from a pop-out menu. If you find yourself frequently using tools accessed in this way, you can save time by adding them to the top level of the palette.

Hold down the Ctrl key as you click on a tool with a pop-out menu, then release the button when you've highlighted the tool of your choice. It will be added to the palette, and removed from the pop-out.

To remove the tool, Ctrl-click it to return it to its original position in the pop-out menu.

FreeHand's rulers

People working with units other than the standard points, millimetres, inches, and so on will probably find Macromedia FreeHand 9.0's Edit Units feature rather useful.

To change the rulers' unit of measurement, select View>Page Rulers>Edit. In the dialog box

(shown, right), name your custom unit, then enter the chosen values in the numerical fields. The bottom pull-down menu contains many alternative units, including miles, nautical miles, feet, and kilometers. When you've entered your values, click Accept, then Close.

Select the new calibration from the pop-up menu at the bottom of your document to change the rulers.

To make your custom rulers available for every new FreeHand document, set them up in a fresh document, and save this as a template.

On the Mac, name it 'FreeHand Defaults', and place it in the 'English' (or the folder corresponding to your default language) folder in the FreeHand application folder.

On Windows machines, name the template 'Defaults.ft9', and save it as on the Mac.

Custom grids in InDesign

Adobe InDesign gives lets you create grids using guides and the Step and Repeat function. To begin, drag the zero point from the top-left of the document window to the point at which you want the grid to start (to reset it, just double-click the marker at the top of the rulers).

Hold down Cmd (Mac), or Ctrl (Windows) and drag from the zero point to the document to place a

horizontal and vertical guide simultaneously onto the new zero point. Now, select the guides and choose Edit>Step and Repeat. Set the options according to the size and spacing of the grid you want to create, then click OK.

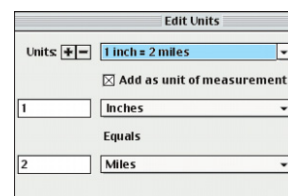
The grid still remains editable, so you can make adjustments to it as you work if you wish. To save your custom grid, drag a marquee around it to select it, then add it to a custom library.

Replacing detail

When working with some types of image in Adobe Photoshop, especially those of people, or those with lots of fine detail, it's sometimes a difficult job not to lose detail and texture.

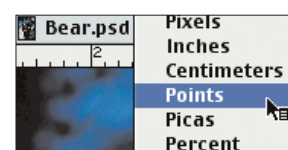
If you find you've smoothed out the bark of a tree or lost the texture of someone's skin, select the areas you wish to restore, create a new layer, then select Filter>Noise>Add Noise. Enter a value of 1.0 in the dialog box, then click OK. Adjust the opacity of the new layer until things look a little better.

Alternatively, take a History snapshot of the image before you do anything drastic – then use the History brush to paint over the lost elements to restore them to their original state without touching the rest of the image.



Macromedia FreeHand: in the Edit Units dialog, you change the units of your rulers.

Ruler units



To quickly change the units of measurement used by Adobe Photoshop and Adobe Illustrator's rulers, Ctrl-click (Mac), or right-click (Windows) on a ruler to bring up a contextual menu.

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Poser 4: creating realistic 3D characters

BY JOE GROVER

3

D graphics and effects in movies have evolved to such an extent in recent years that the line between real and virtual actors is blurring.

This is due to ever-expanding technology that allows artists and animators to create amazing realism. Today, this technology extends to desktop computers and affordable applications such as Curious Labs Poser 4 and Poser Pro Pack that allow you to create photorealistic characters quickly and easily.

So how do you get realism in your Poser 4 and Pro Pack renderings? You can utilize many features to achieve astonishing effects, and add life and personality to the default Poser characters. It's worthwhile to note that the Pro Pack isn't required for most of the highlights we're going to discuss, although it does have features that, when used with other 3D applications, will raise your renderings to the next level.

→

Lighting

Lighting is essential to achieve realism in any 3D scene. Follow the simple tips below, and you may see dramatic changes in your final output.

Combine lighting types

Poser 4 includes two types of lights: infinite and spot. To achieve more realistic lighting use spotlights in conjunction with the infinite lights.



Distance falloff

Distance falloff is great for simulating natural fall-off of lighting from lamps, candles, car lights, and so on.

Hot spot settings

The hot spot (Angle Start) and fall-off (Angle End) settings are very useful when using a spotlight to illuminate specific areas of a model. Making these angle values small accentuates just the desired area.

Shadow intensity

Decrease the shadow intensity for the lights. Rarely is a shadow ever 100 per cent black. Different shadow intensities for different lights can also create some very interesting effects.

Sharper shadows

Increasing a light's shadow map size makes the shadow edges sharper in your render. (Remember, though, that larger shadow maps take up more memory.)

Increasing a light's shadow map

size gets rid of flickering shadows in animations.

Light colours

Modifying a light's colour helps establish mood. Red lighting is great for action or drama, whereas blue or green lighting works well in scenes where the artist is creating a mellow mood or a cold or underwater environment.

The more saturated the colour, the more dramatic the effect.

Use reference material

Photography books are an excellent source of lighting principles and techniques.

Better spotlights

The closer together the values are for Angle Start and Angle End on a spotlight, the sharper the edge of the lighted area.

This is because there is less distance from the edge of the hot spot and the edge of the falloff.



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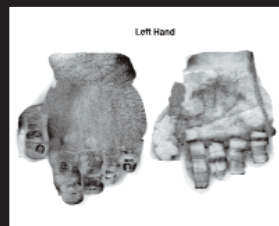
Bump maps

Using bump maps to create realistic textures

When realism is the name of the game, you can't go wrong by combining your scanned skin textures and converting them to greyscale images to create custom bump maps. Bump maps add depth to a figure's skin, showing wrinkles, pores, scales – the possibilities are endless.

Match surface features

Use the skin or face texture map as a bump map by making a copy and converting it to greyscale. By doing this, the bump will match the pores, blemishes, and scars of the texture map.



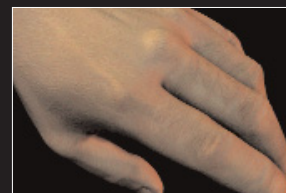
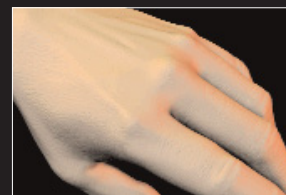
Adjust the levels

Adjust the bump map's B&W levels in an image-editing program such as Adobe Photoshop by increasing the contrast. Make the blacks

and the whites more intense for greater control of the bump height in Poser when using the Bump Map Strength slider.

Experiment with colour

Say goodbye to the uninspiring default surface and hello to some detailed human, animal, alien, or creature skin. You have the freedom to easily create any surface terrain you can imagine.



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Transparency maps

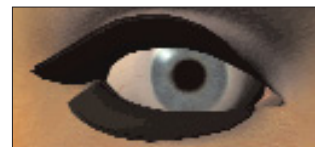
The function of a transparency map is to render transparency in the geometry, based on the map's greyscale value. Used carefully, they can yield some very realistic results.

Blending hair

Using transparency through image maps on the edges of a hair object helps blend the hair into the scalp at the edges.

Eyelashes and fabric

Transparency maps work extremely well for creating eyelashes (right). They can also be used on clothing to create specific clothing styles such as a v-neck jumper.



Single lens reflex cameras, traditionally the domain of film-based photographers, have come of age and stormed into the digital arena. The *Digit Labs* team tested seven of the best digital SLRs on the market.

Digital SLR cameras

By Simon Eccles

Digital SLR Cameras tested

Canon EOS D30
Fujifilm FinePix S1 Pro
Fujifilm FinePix 6900 Zoom
Kodak DCS 760
Minolta Dimage 7
Nikon D1X
Olympus Camedia E-10

For more than 50 years, the Single lens reflex (SLR) camera configuration has dominated the professional and keen amateur photographic markets. The features that make SLRs desirable for film photography are just as relevant to digital cameras: the viewfinder sees a clear and accurate preview of the final image because it looks through the same lens. The ability to easily change lenses gives different fields of view from wide angle to telescopic or close-up.

The very first digital camera, Kodak's 1992 DCS 100, was a converted Nikon film SLR. Ten years on, it's still expensive to build digital SLRs – they tend to stay in the professional bracket while the growing consumer/prosumer market uses



Canon EOS D30



Price: £1,531 plus VAT (body, charger, no lens) Company: Canon UK, 08705 143 723, www.canon.co.uk

Features list

- Purpose-built 3.25mp digital SLR
- Advanced CMOS sensor
- Shoots three frames per second
- Accepts Canon lenses

Despite its close resemblance to the EOS 30 film camera, this is a purpose-built digital camera. It shares a lot of its mechanical and electronic structure with the mid-range £400 EOS 30, though, and some photographers criticize the plastic body. They're missing the point: the Canon is less than half the price. It's also fairly light (780g) and compact, so it's easier to lug around. The D30 takes standard Canon autofocus lenses, which are generally as good as Nikon's.

Start-up is almost instant, and the shutter response is instantaneous. However, the D30 autofocus implementation is certainly slower than the rival Nikon-based SLRs (and slower than some Canon film cameras), and the camera is missing a few useful features – most notably a depth-of-field preview button. The D30 doesn't have the eye-controlled five-zone focusing of the top Canon cameras, but it does have three manually selected zones.

Canon's AI Server technology can automatically predict focus to compensate for fast-moving objects. Exposure can be switched between aperture or shutter priority, manual, and several program modes. There are also three metering modes, including spot. There's a built-in pop-up flash, but keen photographers will use one of Canon's Speedlite EX external flashguns, which interface with the camera exposure system.

A big factor in this camera's affordability is the unusual choice of a 3.25mp CMOS sensor instead of a CCD.



CMOS used to have a poor reputation, but in this case, the sensor uses new on-chip processing to give excellent results – there's no visible colour or contrast difference compared with a CCD. The output resolution is 2,160-x-1,460 pixels, with a lower resolution option of 1,440-x-960 pixels.

The D30's sensitivity can be switched between 100, 200, 400, 800 and 1,600 ISO, though noise increases above 400. A useful feature is the noise reduction setting for exposures of more than one second: this doubles the writing time, but kills random noise without losing detail.

The user interface for digital control and playback/deletion is particularly well thought-out. Software includes RemoteCapture, a Photoshop plug-in for preview and downloading, plus Photoshop LE and a bunch of Canon imaging utilities.



cheaper, but less flexible, camera configurations with fixed lenses and electronic viewfinders.

Professional photographers' scepticism is being overcome as they realize that digital SLRs accept their existing lenses and can fulfil many of their daily requirements without the cost and time factor of film and chemical processing. They're already widely used by newspaper photographers who can instantly beam pictures back to base in time for deadlines.

The new 5 and 6-megapixel (mp) SLRs have enough resolution for a full A4 magazine page, though the 'clean' CCDs of the 3 and 4mp models enlarge perfectly well to A4 size. The real advantage of higher resolution is that there's enough detail to crop and enlarge a small section of the image.

Digital cameras' selectable sensitivity means that you can change from, say, ISO 100 to 1,600 from shot to shot. Unlike film, digital cameras have automatic and selectable white balance controls, which are useful for mixed artificial lighting conditions.

Colour me bad

On the downside, digital colour response is often different to film, which can be important when doing colour-critical matching work such as fabrics for catalogues, or faces for portrait and model work.

Most digital SLRs use higher quality CCDs than you'll find in prosumer cameras. Their colour filters and processing algorithms are tuned for quality; prosumer CCDs are compromised by the need to capture live video for preview monitors. Nearly all SLRs will optionally store uncompressed images for maximum quality, and some can output raw formats that allow for more tweaking when they hit the computer.

Large picture files mean that cameras that can take the IBM Microdrive cartridge, with capacities up to 1GB, are desirable.

The Microdrive fits a standard CompactFlash II slot, but not all cameras support it, mainly because it runs hot, which can degrade the CCD performance.

All the digital SLRs on the market today are based to some degree on 35mm film camera components, for the obvious reason that requirements for main bodies, optics, shutter and exposure electronics are common to film and digital. The advantage to the user is that the huge range of interchangeable lenses, filters, flashguns and other accessories available for film SLRs also fit the digital models. Photographers with a significant investment in lenses can simply swap between film and digital bodies.

Size matters

The downside of using 35mm camera bodies is that so far, all models have compromised on the field of view through the lens. A 35mm film frame measures 24-x-36mm. A digital camera CMOS or CCD is typically about two thirds of that size; making them bigger is expensive. In practical terms, a smaller CCD has the same effect as fitting a lens with a 1.5x longer focal length.

This is great if you want to do a lot of telephoto shooting of sports or wildlife, as you get extra magnification for the same aperture. On the other hand, ultra-wide angle 16 or 18mm lenses are very expensive compared with the 28mm you'd need for the same result on a film camera.

Phillips makes a 6mp CCD that's exactly the same size as a 35mm frame, but it's so expensive that so far it's only been used in digital studio cameras costing £14,000 or more. Last year, Pentax and Contax announced plans to use it in SLRs, but neither seems to be anywhere near delivery. Leaf has demonstrated a high-quality 6mp CMOS sensor called C-MOST that measures 24-x-36mm – and the company hints that the price will be low enough for a future professional SLR camera.

Fujifilm FinePix S1 Pro



Price: £2,150 plus VAT (body, battery, 340MB CompactFlash card) Company: Fujifilm UK, 020 7586 5900, www.fuji.co.uk

Features list

- 6.1, 3.5 and 1.4mp output
- Shoots 1.5 frames per second
- CompactFlash plus SmartMedia storage
- Accepts Nikon lenses

The FinePix S1 Pro is a converted SLR film camera, based on the rather old and low-end Nikon F60 body with a new digital back and base unit incorporating a CCD, control buttons, two-inch monitor, batteries, card reader, and USB port.

Fujifilm has done a good job and the image quality is excellent, though marginally less sharp than the Kodak DCS 760. It was originally billed as a 6.1mp model, but while it really can output 6.1mp, it's only capturing 305mp – Fujifilm claims that its unique hexagonal cell Super CCD captures more information, and is able to stand more interpolation.

There are three output resolutions: 3,040-x-2,016 pixels (for 6.1mp), 2,304-x-1,536 (for 3.5mp, close to the 'true' resolution), and 1,440-x-960 (for 1.4mp). You can also switch JPEG compression off for ultimate quality (but much bigger) files. The CCD's sensitivity is high, with a choice of ISO 320, 400, 800 and 1,600.

The playback monitor can show one, four or 12 shots, and you can zoom and scroll around images and display an optional exposure histogram. The camera also features a very good secondary status/menu display for controlling all the digital settings.

Actually, capturing at 6.1mp doesn't give noticeably better results than the 3.5mp setting and then interpolating in Photoshop, so you may as well choose the latter and save card space. There are slots for both a CompactFlash II (or IBM Microdrive) and a SmartMedia card – you

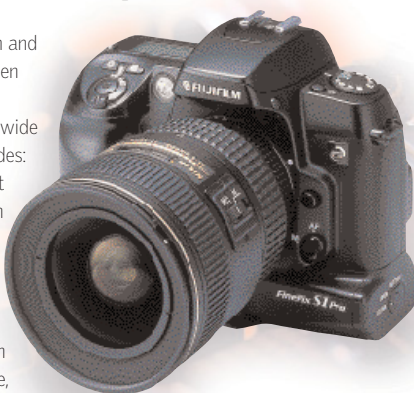
can load both and switch between them.

There's a wide choice of modes: you can shoot in colour with a choice of saturations plus B&W, for example – and you can also vary tone, sharpness and white balance.

The S1 Pro has two battery compartments. One takes four rechargeable AA-size batteries for the digital parts, and the other takes two non-rechargeable lithium batteries for the camera's components. Battery life is very good between recharges.

The base F60 camera isn't a professional camera and it's a bit plasticky, but it offers a perfectly good range of manual and automatic controls and overrides. The metering, autofocus, and general build quality aren't up to the level of the Nikon D1 or Kodak DCS 760, but they're on a par with the Canon D30.

Image quality is impressive, and almost as good as the original Nikon D1. I found the dynamic range (the ability to capture highlights and shadows) to be particularly good.

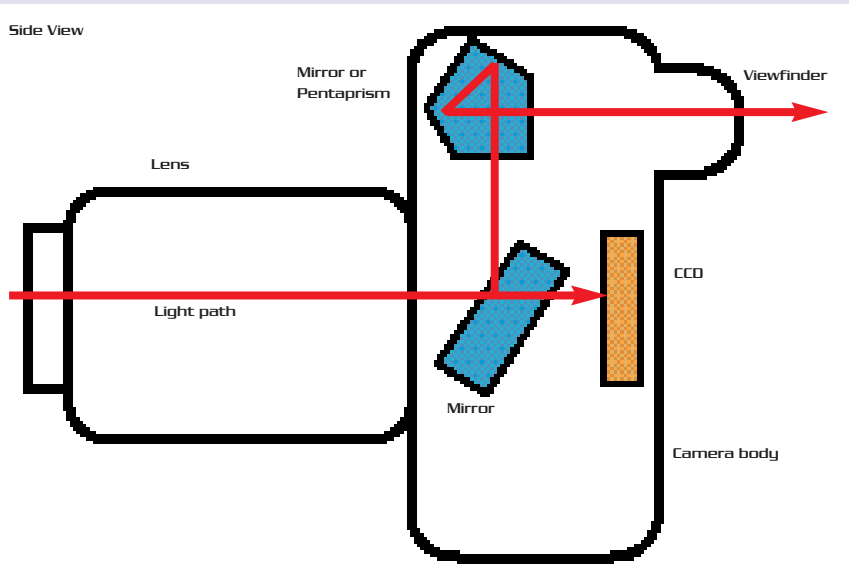


Tech notes: looking inside an SLR camera

A single lens reflex (SLR) camera is so-called because the photographer can compose the scene in the optical viewfinder through the same lens as that used to expose the image onto the film or electronic sensor. The result is a very clear image that shows exactly what the film or sensor will see through whatever lens is fitted at the time. It's far superior to any LCD or electronic viewfinder.

'Reflex' refers to the arrangement of mirrors inside the camera that direct the main lens' focused image towards the viewfinder for composition. SLRs use a main mirror just behind the lens which is angled at 45 degrees upward. The image is reflected onto a horizontal ground glass screen at the top of the main body, at which point it appears left-right reversed. Modern SLRs have a pentaprism, an arrangement of mirrors that flip the mirror image back to normal and direct it up and backwards so it can be viewed through a forward-facing 'eye-level' viewfinder above the camera rear body.

When you take a photograph by pressing the shutter button, the main 45 degree mirror flips up, blocking out the viewfinder and allowing the light from the lens to project backwards towards the film or sensor. The shutter opens to allow light through for a



precisely timed period, then the mirror flips down again and the viewfinder image is restored.

Most digital SLRs can't provide a digital preview on the camera's LCD monitor – the mirror and shutter block the path to the sensor. An exception is the Olympus

E-10 and forthcoming E-20, which use twin prisms instead of a mirror, directing light at the viewfinder and CCD simultaneously, so an electronic preview is possible.

Using an optical viewfinder means that digital SLRs tend to be very frugal with battery life.



Digital files from the cameras tested are included on this issue's CDigit in the 'Magazine' folder. **Note:** Images have been reduced by 50 per cent due to space reasons.

Fujifilm FinePix 6900 Zoom

Price: £799.99 plus VAT Company: Fujifilm UK Ltd, 020 7586 5900, www.fuji.co.uk

Features list

- 6.0mp output, 3.3mp capture
- 6x zoom lens
- Extensive control set
- Secondary LCD viewfinder
- Single, multi-frame and video-clip capture

To find out whether the extra expense, size, and complexity of the digital SLRs really translates into better pictures, we tried two of the latest high-resolution 'prosumer' cameras alongside them. The Fuji FinePix 6900 Zoom has a similar 6mp output resolution to the FinePix S1 Pro SLR (although the 6900 uses a different, 3.3mp-input Super CCD). The Minolta Dimage 7, tested below, is another top prosumer model, with a genuine 5.1mp input CCD.

The FinePix 6900 isn't a true SLR – its second 'eye-level' viewfinder is an electronic LCD, not an optical viewfinder. Electronic viewfinders are much coarser than optical finders (or main LCDs), so they're only really useful for following moving objects (which is easier with the camera pressed to your eye than holding it at arm's length), or for when bright sunlight obscures the main LCD.

The built-in f/2.8 autofocus lens has a 6:1 zoom range (35-200mm equivalent) and a switchable manual focus ring at the front. A button enlarges the centre of the viewfinder image to 1:1 to help judge manual focus.

Most of the important functions have dedicated buttons, but there's more reliance on on-screen menus and readouts than the other cameras – and there's no top-panel status display. There's a pop-up flash, but while the hotshoe can take an external flashgun, this doesn't interface with the exposure controls.

Battery life is good despite the reliance on electronic viewfinders – and the mains adaptor simultaneously powers the camera and recharges the battery without having to remove it.

The difference between this camera and the SLRs is responsiveness. The 6900's power-up takes five seconds, and there's a definite delay after you press the shutter before the image is captured. The preview momentarily freezes as you half-press the shutter, making it hard to capture action shots. Unlike all other cameras here, the zoom is motorized, making it quite slow and hard to control.

The FinePix 6900 is a very good prosumer camera – and you won't find any major difference in image quality between this and the SLRs in the sample shots we took. However, the comparatively slow responsiveness means that, unlike true SLRs, the 6900 isn't suited to professional action/reaction or sports/news work. On the other hand, unlike the SLRs, it does provide short-burst video capture and playback.



Kodak DCS 760

Price: £5,900 plus VAT Company: Kodak Professional, 0870 606 1423, www.kodak.com/go/professional

Features list

- 3,032-x-2,008 pixel output
- Shoots 1.5 frames per second
- Huge range of controls and settings
- Accepts Nikon lenses

Kodak was the first company to ship a 6mp digital camera, with its £26,000 DCS 460 in 1995, and has upgraded it in step with its lower resolution, but faster and more affordable professional digital cameras, which are always numbered 'x20'. You often see the DCS 520, 620 and 720 being waved at politicians when they appear in press scrums on the TV news.

The DCS 760 is a specialized 6mp version of the more widely used 2mp DCS 720x, which unfortunately wasn't available for review. The 3,032-x-2,008 pixel resolution is impressive, but now that Nikon has hit 5.9mp and there are 5.1mp prosumer cameras appearing, I wonder how long Kodak can maintain the price.

The 720x and 760 bodies are based on Nikon's top professional film model, the £1,500 F5, with the addition of a digital back with CCD and monitor, and a bulging base unit that takes a huge rechargeable NiMH battery. Despite its size, however, the battery drained faster than rival cameras.

The F5 itself is ultra-tough, heavy, and incorporates Nikon's best focus, exposure and shutter mechanisms. Unlike any other SLR left on the market, the DCS 720x and 760 models use PCMCIA storage cards, with slots for two Type I/II/III cards. An adaptor carrier will accept CompactFlash II or Microdrive cards.

The DCS 760 is will only shoot 6mp images, with no lower resolution option – so memory is

eaten up quickly. Ours had a 320MB card which held just 33 shots. There's a 'tethered' mode, though, where the camera connects to a computer via FireWire, and uploads instantly.

The burst speed is impressive: you can shoot 1.5 18MB frames per second for 24 frames. The sensitivity range is only 80 to 400 ISO, but image quality, especially sharpness and range, is excellent – better than the Nikon D1X or Fujifilm S1. The 1:1 focus check and the spot densitometer on the playback monitor are useful, but the user interface is fiddly.

The DCS software is excellent, allowing you to change the white balance after shooting, add captions in press-standard IPTC format, then download via FireWire.

The £4,395 DCS 720x is more flexible than the 760. It's only 2mp (1,728-x-1,152 pixels), but quality is good, and there's a fast burst rate of 4.3fps for 25+ frames. Its sensitivity range is also higher: 400 to 6,400 ISO. However the Nikon D1 has more resolution, and is faster and cheaper.



Minolta Dimage 7

Price: £999.90 inc VAT Company: Minolta, 01908 200 400, www.minolta.com

Features list

- 5.2mp digital camera, 4.9mp output
- 7:1 manual zoom lens, 28-200mm equivalent
- Flip-up high-resolution viewfinder
- Function buttons instead of on-screen menus

We also used the 5mp Minolta Dimage 7 prosumer camera as a comparison alongside the SLRs. It's broadly similar to the Fujifilm FinePix 6900 Zoom, with a few significant differences. Minolta's CCD is the latest Sony sensor, able to capture 5.2mp, though actual output is 4.95mp. This capture resolution is better than all the true SLRs apart from the top-priced Kodak DCS 760 and Nikon D1X.

The Dimage 7's lens isn't interchangeable, but it's very good and would cover most people's needs. The 7:1 zoom range is equivalent to 28-200mm – very few built-in zooms go as wide as 28mm; the 200mm telephoto is good for sports/wildlife work. The zoom control is completely manual, with a twist-barrel control like a 'real' photographer's lens. This is much faster to use than a powered zoom.

However, the shutter button suffers the usual slight delay of all prosumer cameras, so it isn't a camera for capturing critical action.

There are three exposure meter patterns, including spot, and you can optionally display an exposure histogram when you play back images. The autofocus works well, with an on-screen indicator to show its point of focus. The focus zone can be switched between a central rectangle and a movable spot, which you steer to a particular point in the scene by the four-way control button. You can switch from auto to manual focus, with a big focusing ring for fine

control and the option to enlarge the preview image so you can judge sharpness.

Like the Fuji 6900, the second eye-level viewfinder is electronic. It uses a high-resolution LCD, but it isn't a patch on an optical viewfinder for responsiveness and judging focus.

The Dimage 7 is generously supplied with dedicated function buttons and, unlike the Fujifilm 6900, there's a top-panel status display for most common functions. The only real problem with the Dimage 7 is the power requirement of the big chip and the LCD monitors, which drains the four AA batteries far more quickly than other prosumer cameras we've tested.

Image quality is good, with an impressive dynamic range and the ability to capture fine detail. Overall, the Dimage just wins out over the cheaper Fujifilm 6900 because of its better lens. But, compared to the other SLRs, it just misses out – but as an entry-level model, this scored a worthy Best Buy last issue.



Nikon D1X

Price: Price: £3,999.99 plus VAT (body only) Company: Nikon, 0800 230 220, www.nikon.co.uk

Features list

- 3,008-x-1,960 pixel output
- Shoots three frames per second
- Huge range of controls and settings
- Accepts standard Nikon lenses

The Nikon D1X is a purpose-built professional digital SLR, borrowing mechanical and electronics components from the F100 and F5 professional film cameras. Its body uses the F100's metal alloy, which is marginally less rugged than the F5. Autofocus is very fast and the shutter response is near-instant.

The brand new D1X basically doubles-up the original 1999 D1's CCD to capture 4,024-x-1,324 pixels, then interpolates these asymmetrically to output 3,008-x-1,960 (5.89mp). You can also switch to 2,000-x-1,312 pixels (2.6mp).

I'm not sure about the interpolation – the D1's image quality was staggeringly good and sharp considering its 2.7mp resolution, but D1X shots seem slightly soft compared to the equivalent Kodak DCS 760 with the same lens. You can shoot uncompressed images and import them into Photoshop for tweaking using a supplied plug-in, though.

The F100/F5's metering patterns (3D colour matrix, centre-weighted or spot) are used. You can choose from five aiming points for the autofocus in the viewfinder, and the spot metering can use these points, too.

The D1X shoots 3fps for four frames at maximum resolution, or nine at medium resolution. The sensitivity of 125-800 ISO is slightly restrictive for low-light action, but the maximum shutter speed of 1/16,000 second is amazing. The flash sync up to 1/500th is more obviously useful.

A 64MB CompactFlash II card is supplied, but the D1X is now also approved for IBM's Microdrive, which the original wasn't because of heat soak worries.

The D1X body is bigger and heavier than the Canon D30, but significantly smaller and lighter than the Kodak DCS 720/760. Like the DCS 760, it uses FireWire for downloading its big files – the others get by with USB. There's also an RS-232 port to capture position information from third-party GPS receivers. Any Nikon external flashgun will fit, although for full through-lens flash exposure, you need the dedicated SB-28DX flash at £399.99.

The Nikon View 4 software will only launch when you plug in a camera, which is a bit restrictive. On the other hand, it can automatically enter images into a database such as Canto Cumulus. There's a form for entering captions which are attached to the files. If you want to control a 'tethered' camera directly from your computer, you need the Nikon Capture 2 software supplied with the Pro kit.



Olympus Camedia E-10



Price: £1,250 plus VAT **Contact:** Olympus, 0800 072 0070, www.olympus.co.uk

Features list

- 4.1mp digital camera
- Fixed 35-140mm lens
- True SLR viewfinder
- Movable LCD monitor

This is a bit of an oddity. It's a true SLR with a through-lens optical viewfinder, but the lens isn't interchangeable – you fit screw-on adaptors for wider angles and telephoto. The fixed lens makes this camera pretty bulky to pack and carry: it's 175mm from nose to tail. However, everything else is right and the price is a lot less than the other SLRs. The solid, mainly metal body with rubber grips feels very well-built.

Response times on this camera are almost as good as the pro SLRs: switching on takes two seconds, focusing is about as fast as the Canon D30 (but a little slower than the Kodak and Nikon), and shutter response is instant, though the button is over-sprung, so it's hard to judge the correct pressure.

Unlike other SLRs, the E-10 doesn't have an internal flipping mirror, which means it's very quiet. Instead, it has two prisms that split and divide the light between the viewfinder and the

CCD. This means an electronic preview is available as well as an excellent optical finder that's only slightly dimmer than a conventional SLR.

Output resolution is 4mp (2,240-x-1,680 pixels), but can be switched to lower resolutions including 1.92 and VGA.

There's a status monitor on the top panel, and most functions have a dedicated button with the top control wheel used as a selector. The rear LCD monitor can be flipped out and upward so you can use the camera at chest level. A thumbwheel controls the display zoom from multi-image to 4x enlargement.



The 4x zoom lens is equivalent to 35-140mm, with a maximum f/2 aperture; the zoom control is manual. Focusing is automatic: there's a manual focus ring on the lens – but curiously, the actual lens movement is still powered. ISO sensitivity is rather low, ranging from 80-320.

The E-10 is supplied with two very long life but non-rechargeable lithium battery packs, but alternatively takes four rechargeable AAs. A camera mains adaptor is supplied.

There are two memory slots, for a CompactFlash II card (Microdrives aren't recommended) and a SmartMedia card. There's a button to switch between them with an indicator in the status panel.

Image quality is very good, although there's a little more multi-colour noise than the Kodak or Nikon models show.

Olympus has just announced a new 5mp model called E-20, shipping in November 2001 for £1,499. It uses the same body and lens as the E-10, which will remain on sale.



Products at a glance



Manufacturer	Canon	Fujifilm	Fujifilm	Kodak	Minolta	Nikon	Olympus
Model	EOS D30	FinePix S1 Pro	FinePix 6900	DCS 760	Dimage 7	D1X	Camedia E-10
Price (plus VAT)	£1,531	£2,150	£799.99	£5,900	£999.90	£3,999.99	£1,250
Max pixels	2,160-x-1,460	3,040-x-2,016	2,832-x-2,128	3,032-x-2,008	2,568-x-1,920	3,008-x-1,960	2,240-x-1,680
Shutter speeds	30-1/4,000	320-1/600	3-1/2,000	80-400	4-1/2,000	30-1/16,000	2-1/640
Lens magnification	1.5	1.5	N/A	1.3x	N/A	1.5x	N/A
Lens mount	Canon autofocus	Nikon autofocus	Built-in 6x zoom	Nikon autofocus	Built-in 7:1 zoom	Nikon autofocus	Built-in 4x zoom
Megapixels	3.15	6.1	6.1	6.09	4.95	5.9	4.1
ISO sensitivity	100-1600	320-1600	100-400	80-400	100-800	125-800	80-320
Storage	CF + MD	CF + MD + SM	SM	PCMCIA	CF + MD	CF + MD	CF + SM
Viewfinder	Optical through-lens	Optical through-lens	Electronic through-lens	Optical through-lens	Electronic through-lens	Optical through-lens	Optical through-lens
Body source	Unique, EOS 30 components	Nikon F60	Unique	Nikon F5	Unique	Unique, F5/F100 components	Unique
Interface	USB	USB	USB	FireWire	USB	FireWire	USB
Weight	780g*	800g*	430g†	1,640g*	505g†	1,100g*	1,050g†
Monitor	1.8 inch, playback only	2 inch, playback only	2 inch, preview/playback	2 inch, playback only	1.8 inch, preview/playback	2 inch, playback only	1.8 inch, preview/playback

* Excluding batteries or lens

† Excluding batteries

Digit

Buyer's Guide



At-a-glance product listings of every hardware and software product reviewed in the past 12 months

Digit's mission is to review and rate professional tools that bring out the creativity in you. Each month, *Digit* reviews more creative products than any other magazine in the UK, and *Digit* reviews are the most respected in the industry. The *Digit* Buyer's Guide provides the most authoritative listing of reviewed products in the past year, including ratings, contact details and a product summary. Pricing is correct at the time of the review, but please note that pricing does change – you should contact your distributor for pricing information before purchasing. The listing is updated every month.

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Digit Best Buys



IBM ThinkPad T22

The T22 offers a more sophisticated design and a greater number of small luxuries than many of its competitors; for well-heeled professionals who can afford a top-of-the-line machine, it's the best of its breed.



Apple Power Mac G4 867

This latest offering from Apple stomps Intel Pentium 4 processors in Adobe Photoshop tests – and features the SuperDrive, which lets you burn DVDs that you can watch on your TV at home.



Sony Vaio PCG-FX109K

The FX109K shows that Sony is aware of users' needs, not just of looking flash for the sake of it – which raises it to a plateau above even its most silvery competitors.

TOP TEN WORKSTATIONS

The most recently reviewed workstations to be awarded a Digit Best Buy logo are:



- Apple PowerBook G4
- Apple PowerBook G4 500
- Apple PowerMac G4 867
- Compaq AP550 workstation
- HP Visualize x-class
- IBM ThinkPad T22
- Lifebook X-7595
- Sony Vaio PCG-F808K
- Sony Vaio PCG-FX109K
- Toshiba Tecra 8100

Workstations

NAME	RATING	REVIEWED	PLATFORM	PRICE	COMPANY	URL	CONTACT	TELEPHONE
A9000	4.0	APR 01	Windows	£2,000	ACi	www.aciplc.com	ACi	020 8357 1116
Pentium III 800MHz, 256MB RAM, 20GB HD, 15-inch screen, Savage IX8+ graphics card, IEEE 1394, 3.4kg, 3.5 hour battery life								
Evo W6000	4.0	OCT 01	Windows	£1,700	Compaq	www.compaq.co.uk	Compaq	0845 270 4222
A very fast machine in a compact casing – but its badly designed internal layout means that upgraders should steer well clear								
iMac DV SE	3.5	JUN 01	Mac	£1,099	Apple	www.apple.com/uk	Apple	0800 783 4846
If you're only working with the most basic of media, then you may want to consider this – but anything else will need a G4								
Inspiron 8000	3.5	APR 01	Windows	£2,305	Dell	www.dell.co.uk	Dell	0870 907 5819
Pentium III 850MHz, 256MB RAM, 20GB HD, 15-inch screen, ATI Rage M4 graphics card, 3.26kg, 2.6 hour battery life								
Intellistation Z Pro	4.5	JUL 01	Windows	£2,567	IBM	www.ibm.com/uk	IBM	0800 015 7229
A powerful, beast of a workstation that really flies – although it won't be too long before the next generation supplants it								
Latitude C600	4.0	DEC 00	Windows	£1,849	Dell	www.dell.co.uk	Dell	0870 152 4699
A blisteringly fast machine and full-featured package for power-hungry users on the move – and it won't break your back to carry it								
Lifebook X-7595	4.5	APR 01	Windows	£2,400	Fujitsu-Siemens	fujitsu-siemens.co.uk	Fujitsu	01344 475 000
Pentium III 850MHz, 256MB RAM, 30GB HD, 15.1-inch screen, ATI Rage M4 graphics card, 3.0kg, 3 hour battery life								
Omnibook 6000	3.5	APR 01	Windows	£2,750	HP	www.hp.com/uk	HP	01344 360 000
Pentium III 850MHz, 128MB RAM, 20GB HD, 15-inch screen, ATI Rage M 128 graphics card, 2.9kg, 4 hour battery life								
Portege 7140 CT 2.5	2.5	JUL 00	Windows	£2,195	Toshiba	www.toshiba.com	Toshiba	020 7242 7295
Lacks a portable CD or DVD drive, has puny hard drive and its joystick nipple is a pain to operate								
PowerBook G3	4.5	JUL 00	Mac	£2,349	Apple	www.apple.com/uk	Apple	0800 783 4846
It may be more expensive than the Windows alternatives but its sheer power and stylish design make it a Digit Best Buy								
PowerBook G4	4.5	APR 01	Mac	£2,499	Apple	www.apple.com/uk	Apple	0800 783 4846
G4 500MHz, 256MB RAM, 20GB HD, 15.2-inch screen, ATI Rage M 128 graphics card, FireWire, 2.4kg, 5 hour battery life								
Power Mac G4 Cube	4.0	NOV 00	Mac	£999	Apple	www.apple.com/uk	Apple	020 7692 9990
Small but powerful: the Cube sports a 450MHz processor, FireWire ports, and optional 32MB ATI Radeon card. Lack of expansion sucks, though								
Power Mac G4 500 DP	4.5	OCT 00	Mac	£2,499	Apple	www.apple.com/uk	Apple	0800 783 4846
Dual 500MHz G4 processors, up to 1.5GB of RAM, ATI Rage 128 card with 16MB VRAM, 40GB ATA/66 hard drive, 10/100/1,000BaseT ethernet								
Power Mac G4 533	4.0	MAR 01	Mac	£1,599	Apple	www.apple.com/uk	Apple	0800 783 4846
533MHz PowerPC G4, NVidia GeForce MX card, 32MB VRAM, 133MHz bus, five free PCI slots, 40GB Ultra ATA/66 HDD, CD-RW, 128MB SDRAM								
Power Mac G4 733	4.0	JUN 01	Mac	£2,099	Apple	www.apple.com/uk	Apple	0800 039 1010
Worth it for the SuperDrive, but many users would get more from a dual-processor 533 – which costs £300 less								
Power Mac G4 867	4.5	OCT 01	Mac	£1,799	Apple	www.apple.com/uk	Apple	0800 783 4846
The fastest G4 chip ever, plus the addition of a DVD-R SuperDrive and Mac OS X, makes the 867MHz Power Mac a must-buy								
Satellite Pro 4600	3.5	APR 01	Windows	£1,599	Toshiba	www.toshiba.co.uk	Toshiba	020 7872 8000
Pentium III 700MHz, 128MB RAM, 10GB HD, 14.1-inch screen, Trident XP graphics card, 3.17kg, 3 hour battery life								
Solo 9500 XL	4.0	JUL 01	Windows	£1,699	Gateway	gateway.co.uk	Gateway	0800 973 132
It's got the biggest and best screen so far on a laptop with the power to match – but it may be too bulky for some								
Tecra 8100	4.5	APR 00	Windows	£1,995	Toshiba	www.toshiba.com	Toshiba	020 7242 7295
A mobile design unit with fast system, fantastic screen, great colour and sharpness, and a near 4-hour battery life. Ideal for the desktop designer								
TravelMate 730	3.5	JUL 00	Windows	£2,899	Acer	www.acer.co.uk	Acer	0870 900 2237
Worthy laptop, with large 15-inch screen and solid specs but let down by fiddly scroll features								
TravelMate 739TLV	4.0	APR 01	Windows	£2,550	Acer	www.acer.co.uk	Acer	0870 900 2237
Pentium III 850MHz, 128MB RAM, 20GB HD, 15.1-inch screen, ATI Rage LT graphics card, 3.2kg, 4.2 hour battery life								
ThinkPad 2041UK	4.5	JUL 00	Windows	£2,929	IBM	www.ibm.com	IBM	0800 015 7229
One of the first laptops to use a 700MHz Pentium III chip for super fast performance, coupled with its new thinner case makes this a Digit Best Buy								
ThinkPad T22	4.5	NOV 01	Windows	£1,648	IBM	www.ibm.com/uk	IBM	0800 015 7229
It's expensive, but the lightweight ThinkPad T22 has a large screen that will help keep most mobile design professionals happy								
Vaio PCG-F808K	4.5	APR 01	Windows	£2,384	Sony	www.sonymstyle.co.uk	Sony	08705 111 999
Pentium III 750MHz, 128MB RAM, 20GB HD, 15-inch screen, ATI Rage M 128 graphics card, IEEE 1394, 3.42kg, 2.5 hour battery life								
Vaio PCG-FX109K	4.5	JUL 01	Windows	£2,550	Sony	www.sonymstyle.co.uk	Sony	08705 111 999
A powerful, top-spec laptop with a useful combination DVD and CD-RW drive, and good set of multimedia software								
Visualize x-class	4.5	AUG 00	Windows	£4,155	HP	www.hp.com/uk	HP	01344 360 000
An expensive but incredibly powerful workstation that will make your creative team sit up and beg for more. Ideal for high-end graphics work								

Digital cameras

NAME	RATING	REVIEWED	PLATFORM	PRICE	COMPANY	URL	CONTACT	TELEPHONE
3D 1500	3.0	MAY 00	W M	£2,600	Minolta	www.minolta.com	Phantasia	01993 883 700
Specially modified camera with MetaFlash technology that lets you capture 3D models from real-life objects								
Camedia 4040Z	4.0	NOV 01	W M	£680.85	Olympus	www.olympus.co.uk	Olympus	0800 071 0070
Compact 4.1mp digital camera with a full range of manual and automatic features. Image quality is slightly disappointing								
Camedia C-2100	3.5	FEB 01	W M	£899	Olympus	www.olympus.co.uk	Olympus	0800 071 0070
A flexible camera for digital photographers who take both wide-angle and telephoto shots – although it has only a 2.1 megapixel CCD								
Camedia E-10	4.0	NOV 00	W M	£1,276	Olympus	www.olympus.co.uk	Olympus	0800 071 0070
A well-put-together, powerful digital camera offering a top resolution of 4.1 megapixels – but with a price tag to match								
CoolPix 880	4.5	JUN 01	W M	£595	Nikon	www.nikon.co.uk	Nikon	020 8541 4440
A 3.34mp camera with a 2.5x zoom lens. Good choice of shutter speeds, although only two aperture settings. Excellent for the less technical user								
CoolPix 995	4.5	SEP 01	W M	£680	Nikon	www.nikon.co.uk	Nikon	0800 230 220
3.34mp digital camera with longer zoom lens, improved flash and better toolset than the previous model								
Cyber-shot DSC-P1	3.5	JUN 01	W M	£595	Sony	www.sony.co.uk	Sony	08705 111 999
Extremely simple to use – perhaps too much so. The lack of manual focus controls make casual shots fine, but more professional ones will suffer								
Cyber-shot DSC-F505V	4.0	JUN 01	W M	£599	Sony	www.sony.co.uk	Sony	08705 111 999
A 3.34mp camera (2.6mp are accessible down the lens) with some clever features – great for informal situations, but not really pro applications								
DC3800	3.0	MAR 01	W M	£298	Kodak	www.kodak.co.uk	Kodak	0870 243 0270
A tiny, stylish camera offering a 2.1 megapixel resolution that has sacrificed much of its quality and usefulness to reach that point								
DC4800	3.5	JUN 01	W M	£595	Kodak	www.kodak.com	Kodak	0870 243 0270
A 3.1mp camera with dedicated control dials and options for speedy selection. Probably not for more professional users								

Dimage 7	4.5	NOV 01	W M	£851.06	Minolta	www.minolta.co.uk	Minolta UK	01908 200 400
5.2 million pixel digital camera with well thought-out controls and an excellent manual zoom lens. It's heavy on batteries, though								
EOS D30	5.0	APR 01	W M	£1,999	Canon	www.canon.co.uk	Canon	0800 680 8062
An excellent value, high-quality digital SLR camera for Canon lenses and accessories. It produces excellent quality images								
FinePix 40i	2.5	APR 01	Windows	£399	Fujifilm	www.fujifilm.co.uk	Fuji UK	020 7586 5900
With one device performing two major functions, the 40i will quickly exhaust memory, battery life, and your patience								
FinePix 4700 Zoom	4.0	AUG 00	W M	£595	Fujifilm	www.fujifilm.co.uk	Fuji UK	020 7586 5900
A very high-resolution compact digital camera with a good feature set and a bargain price. Shame some of the images are noisy								
FinePix 4900 Zoom	4.5	JUN 01	W M	£799	Fujifilm	www.fujifilm.co.uk	Fuji UK	020 7586 5900
A 6x zoom lens, easily selectable automatic functions, and a very light weight make this a camera well worth considering								
FinePix S1 Pro	4.5	DEC 00	W M	£2,300	Fujifilm	www.fujifilm.co.uk	Fuji UK	020 7586 5900
The S1 Pro is a versatile digital SLR that captures good-quality colour at three resolutions, but delivers slightly soft results								
GC-X1	4.0	SEP 00	W M	£596	JVC	jvc-europe.com	JVC	020 8208 7654
Good all-round compact digital camera; innovative quality-improvements mode require tripod; so-so lens has good macro								
Mavica MVC-CD10000	3.5	OCT 00	W M	£1,021	Sony	www.sony.co.uk	Sony	08705 111 999
First digital camera to save images to CD-R, 2.1-megapixel CCD, 1,600-x-1,200 resolution, 10x optical zoom, Steady Shot stabilization system								
MX-2900	4.0	AUG 00	W M	£510	Fujifilm	www.fujifilm.com	Fuji UK	020 7586 5900
Excellent digital camera with great output. Features 1,800-x-1,200 resolution, 38-105mm optical eqv zoom, 2.5x digital zoom, serial, SmartMedia								
PhotoPC 800	4.0	DEC 99	W M	£460	Epson	www.epson.co.uk	Epson	0800 220 546
Higher-resolution camera that scores well. Features 1,600-x-1,200 resolution, 2x digital zoom, serial, USB, video, CompactFlash								
PhotoPC 3000	3.5	JUN 01	W M	£680	Epson	www.epson.co.uk	Epson	0800 289 622
3.34mp CCD with image interpolation, 3x zoom lens, 2x digital zoom, f/2 aperture rating and 800 ISO – but average features show its age								
PhotoPC 850z	4.0	AUG 00	W M	£535	Epson	www.epson.co.uk	Epson	0800 220 546
Prosumer camera raises the bar, but the three megapixels requires interpolation. Images are crisp and good quality though								
PowerShot G1	4.5	JUN 01	W M	£680	Canon	www.canon.co.uk	Canon	0800 680 8062
A solid-feeling semi-compact digital camera with a full feature set, great lens, and true external flash support – stands out from the crowd								
PowerShot Pro90 IS	4.5	JUN 01	W M	£1,099	Canon	www.canon.co.uk	Canon	0800 680 8062

Digit Best Buys



Freecom Traveller II

Perfectly designed for the mobile design professional, the Traveller II range is physically robust, compact, and looks great. If you're looking for the ideal laptop companion and don't mind paying for it, this is the range to buy.



Eizo FlexScan L675

A monitor ideal for a dual-display setup, the FlexScan L675 is affordable, and offers excellent usability options and display quality.



Lexmark C720n

The print quality delivered by this A4 proofer is outstanding: it prints narrow parallel lines as well as a monochrome printer, and colours are rich and vibrant.

TOP THREE STORAGE

The most recently reviewed storage solutions to be awarded a Digit Best Buy logo are:



Freecom Traveller II
LaCie StudioDrive
One Technologies 16/10/40X

TOP FIVE MONITORS

The most recently reviewed monitors to be awarded a Digit Best Buy logo are:



Barco Reference Calibrator
Eizo FlexScan L675
LaCie Electron22Blue II
Mitsubishi MultiSync LCD 1850 DX
Sony SDM-N80

CyClone 24/10/40	4.0	NOV 01	Windows	£169.36	TDK	tdk-europe.com	TDK	01737 773 773
A speedy CD-RW writer with top performance results, the TDK CyClone 24/10/40 is a great choice for those with the budget to afford it								
Designer CDRW	4.5	AUG 01	W M	£299	Formac	www.formac.co.uk	Formac	020 8533 4040
Blisteringly fast, easy to connect – and good-looking to boot – this drive is well worth a look								
Digital Wallet	3.5	APR 01	W M	£549	Minds@Work	mindsatwork.com	Introphoto	01628 771 055
An excellent, original idea for portable storage that, despite offering 6GB of space, just doesn't live up to its potential								
DVR-A03	4.5	MAY 01	Windows	£625	Pioneer	www.pioneer.co.uk	Pioneer	01753 789 500
This type of DVD-R/CD-RW combo drive promises to change the worlds of computing and entertainment								
EZCD-RW	3.0	AUG 01	W M	£155	Amacom	amacom-tech.com	Amacom	020 8993 7373
More for Windows users than Macintosh, this drive displays speedy reading, but writing speeds were a touch on the slow side								
LightSpeed CDRW2200EZ	4.0	SEP 01	Windows	£170	Yamaha	www.yamaha.co.uk	Image Store	01635 297 297
This is the fastest CD-RW drive we've seen – so if you need current state-of-the-art performance, this is the way to go								
Peerless drive	3.0	OCT 01	W M	£340	lomega	iomega-europe.com	lomega	020 7365 9527
lomega may see this as the Jaz drive of the future, but it fails to impress with slow speeds on the USB version – and high costs								
Personal Storage 3000DV	4.0	OCT 01	W M	£235	Maxtor	www.maxtor.com	Maxtor	00 33 1 453 2400
This fast and rugged FireWire drive lives up to the technology's name, but you'll pay plenty for its 60GB of storage								
PlexWriter 12/10/35	4.0	AUG 01	W M	£329	Plextor	www.plextor.be	Mygate	020 8297 9699
As stylish SCSI drive that doesn't disappoint speed-wise when both reading and writing CDs, although reading pre-recorded CDs may cause problems								
PocketDrive	4.0	AUG 01	W M	£299	LaCie	www.lacie.co.uk	LaCie	020 7872 8000
Barely bigger than the diameter of a CD, this USB/FireWire drive doesn't disappoint in either reading or writing CDs								
Predator	3.5	AUG 01	W M	£243.31	lomega	iomega-europe.com	lomega	020 7365 9527
If you need USB and don't mind the slowish transfer speeds, the Predator's software bundle might prove a value-for-money draw								
StudioDrive	4.5	AUG 01	W M	£249	LaCie	www.lacie.co.uk	LaCie	020 7872 8000
This no-nonsense USB/FireWire drive screams through both reading and writing CDs – and it sports buffer underrun protection, too								
Traveller II	4.5	NOV 01	W M	£170.20	Freecom	www.freecom.com	Freecom	0049 306 112 990
Though expensive, the Traveller range consists of small, sleek, and option-rich CD, CR-RW, and DVD drives that are highly portable								
USB CDRW	4.0	AUG 01	W M	£154.83	lomega	iomega-europe.com	lomega	020 7365 9527
Easy to set up, comes with quality software, and offers decent transfer speeds for the USB interface								

Monitors

NAME	RATING	REVIEWED	PLATFORM	PRICE	COMPANY	URL	CONTACT	TELEPHONE
1600 SW	4.0	SEP 01	W M	£1,715	SGI	www.sgi.co.uk	SGI	0870 243 2243
A widescreen LCD display that's bright and cool looking, but with a limited viewing angle. A graphics card or converter box is also needed								
Belinea 10 18 10	4.0	SEP 01	W M	£1,049	Maxdata	www.belinea.co.uk	Maxdata	01344 788 910
A cheap 18.1-inch LCD monitor that strips down the luxuries, instead concentrating on colour and resolution. It won't pivot, though								
Cinema Display	4.0	SEP 01	Mac	£1,799	Apple	www.apple.com/uk	Apple	0800 783 4846
A giant 22-inch LCD display that delivers excellent colour, and looks fabulous. However, it only works with newer G4s; Windows users are excluded								
Ecomio 751	4.0	NOV 01	W M	£721	Elsa	www.elsa.co.uk	Elsa	0800 563 445
A high-quality monitor with noticeably high image quality, but a small viewing area and a dodgy auto control								
Electron22Blue II	4.5	MAY 01	W M	£799	LaCie	www.lacie.co.uk	LaCie	020 7872 8000
Just about everything you need from a monitor: a flat tube, flicker-free display, and great colour reproduction. The only flaw is the high price								
Flatron LCD 885LE	3.5	SEP 01	W M	£1,099	LG Electronics	lgelectronics.co.uk	LG	0870 607 5544
An affordable 18.1-inch LCD display with plenty of connection options and a high specification, marred only by poor contrast and brightness								
FlexScan L675	4.5	SEP 01	W M	£1,439	Eizo	www.eizo.co.uk	Eizo	01483 719 520
A mid-priced 18-inch LCD that outperforms most of its rivals, offering excellent colour, clear detail, four USB ports, and and good connectivity								
FlexScan L771	3.5	SEP 01	W M	£2,219	Eizo	www.eizo.co.uk	Eizo	01483 719 520
The big brother of the L675 – a 19.1-inch LCD display that offers excellent colour and resolution, but detail can be blurry								
FP751	4.0	SEP 01	W M	£919	Acer	www.acer.co.uk	Acer	0870 900 2237
This 17-inch LCD includes all the basic features of a decent monitor, but strips out all the niceties – a no-frills display								
MultiSync LCD 1850 DX	4.5	SEP 01	W M	£1,649	NEC-Mitsubishi	mitsubishi-monitors.com	NEC-Mitsubishi	020 7202 6300
A classy 18.1-inch LCD screen with bright colours, crisp detail, a wide viewing angle, and the ability to fit on the smallest of desks								
MultiSync LCD 2010 X	3.0	SEP 01	W M	£3,199	NEC-Mitsubishi	mitsubishi-monitors.com	NEC-Mitsubishi	020 7202 6300
If you want the real estate of a 24-inch CRT, you'll have to pay up for this 20.1-inch LCD display. Good colour and detail, but poor top resolution								
Photon18blue	4.0	SEP 01	W M	£1,199	LaCie	www.lacie.co.uk	LaCie	020 7872 8000
A huge £600 has been knocked off the price of this 18-inch LCD monitor, which offers stunning colour reproduction but poor video playback								
SDM-N80	4.5	SEP 01	W M	£1,699	Sony	www.sony-cp.com	Sony	0870 511 1999
Stylish and innovative, this 18.1-inch LCD display accepts audio, video, and USB from more than one machine, and has vibrant colour and detail								
SyncMaster 171MP	4.0	NOV 01	W M	£1,149	Samsung	www.samsung.com	Samsung	020 8391 0168
As expensive as an 18-inch LCD – but brightness, and excellent text and colour reproduction make this a great choice if you want a TV as well								

Printers

NAME	RATING	PLATFORM	REVIEWED	PRICE	COMPANY	URL	CONTACT	TELEPHONE
7200n	4.0	OCT 01	W M	£1,729	Oki	www.oki.co.uk	Oki	01753 819 819
A very fast A4 proofer that manages good detail in images, but the colour is a little off. A straight paper path makes jams easy to clear								
9200n	4.0	OCT 01	W M	£4,079	Oki	www.oki.co.uk	Oki	01753 819 819
This colour laser can handle 12-x-18-inch paper, and prints clear colour graphics at 2.5ppm. It's also extremely easy to use and maintain								
AcuLaser C2000PS	3.5	OCT 01	W M	£1,849	Epson	www.epson.co.uk	Epson	0800 220 546
A networkable A4 colour proofer with full PostScript tools – it delivers a solid performance, but the resolution is somewhat lacking								
BJC-8200 Photo	4.0	FEB 01	W M	£254	Canon	www.canon.co.uk	Canon	0500 246 246
An impressive inkjet that produced excellent results on Canon's new Pro paper. While not too fast, it's quiet, and relatively cheap to run								
C720n	4.5	OCT 01	W M	£2,040	Lexmark	www.lexmark.co.uk	Lexmark	01628 481 500
This A4 colour laser produces very black, accurate text and rich colours, with subtle texturing and great detail. It's respectably fast, too								
Colour LaserJet 4500N	3.5	MAY 00	W M	£2,360	HP	www.hp.co.uk	HP	0870 241 1485
Versatile colour laser, its 64MB of RAM means it's very fast. A big beast, though								
DeskJet 990Cxi	4.0	FEB 01	W M	£212	HP	www.hp.co.uk	HP	0870 241 1485
Great performance and lots of functionality for those who need fantastic quality output at an affordable price								
DeskJet 1220C	4.0	FEB 01	W M	£355	HP	www.hp.co.uk	HP	0870 241 1485
An economical A3 inkjet that offers fast and versatile printing, and won't disappoint when producing photographs or colour proofs								

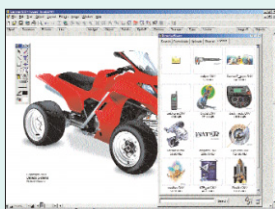
HL-2400CeN	3.5	OCT 01	W M	£1,650	Brother	www.brother.co.uk	Brother	0161 931 2354
This A4 proofer does the job, but is in serious need of an update. It's cheap, though, and produces clear colour and text								
LaserJet 4550n	3.5	OCT 01	W M	£2,040	HP	www.hp.co.uk	HP	0870 241 1485
An A4 colour proofer which, while not winning any speed contests, produces clear, crisp images and text, and is very easy to navigate								
Magicolor 2200GN	4.5	OCT 01	W M	£1,795	Minolta-QMS	minolta-qms.co.uk	Minolta-QMS	01784 442 255
A top-notch A4 proofer. It may be fairly slow, but the pages it produces are worth the wait – and the price includes memory and a network card								
Phaser 750N	3.5	OCT 01	W M	£2,019	Xerox	www.xerox.co.uk	Xerox	0800 787 787
A colour A4 proofer that prints clear, detailed graphics and text. It's easy to understand and use, but is a little on the slow side								
Phaser 860/MN	3.5	OCT 01	W M	£2,100	Xerox	www.xerox.co.uk	Xerox	0800 787 787
This is a fast A4 solid wax printer, which, unfortunately, produces slightly dotted results. It isn't the easiest of printers to understand, either								
PhotoSmart 1218	4.5	FEB 01	W M	£280	HP	www.hp.co.uk	HP	0870 241 1485
With a top resolution of 2,440dpi, this inkjet produced fabulous, lush colours, sharp lines, and plenty of detail. Reasonably fast, too								
Stylus 2000P	4.5	FEB 01	W M	£680	Epson	www.epson.co.uk	Epson	0800 220 546
Gorgeous, rich colour with no loss of detail, stunning good looks, and quiet operation make this an essential tool for photographic output								
Stylus Color 980	3.5	FEB 01	W M	£259	Epson	www.epson.co.uk	Epson	0800 220 546
An exceptionally fast inkjet – however, while colour and B&W gradients were great, colour matching was a little poor								
Stylus Pro 5500	4.5	APR 01	W M	£2,345	Epson	www.epson.co.uk	Epson	0800 220 546
An expensive but worthwhile investment for those who need accurate colour proofs and fabulous photo-realistic output that will last a lifetime								
Stylus Pro 10000CF	4.0	AUG 01	W M	£7,995	Epson	www.epson.co.uk	Epson	0800 220 546
A giant inkjet for fast signage, fine art, and CAD applications – but wait for the PostScript RIP to become available								
T8106	4.5	OCT 01	W M	£1,795	Tally	www.tally.co.uk	Tally	0870 872 2888
It may not be the quickest or highest resolution A4 proofer, but it produces excellent graphics and text, and features Web administration								
Z52	3.5	FEB 01	W M	£164.50	Lexmark	www.lexmark.co.uk	Lexmark	01628 481 500
A good no-fuss, fast workhorse at a price that won't make you wince, but for a few pennies more there are better inkjets available								

Scanners

NAME	RATING	REVIEWED	PLATFORM	PRICE	COMPANY	URL	CONTACT	TELEPHONE
ArtixScan 2500	4.0	JUL 01	W M	£3,199	Microtek	microtekeurope.com	Microtek	01908 317 797
A large A4 device with versatile options for scanning reflectives and transnries – and the software is to die for								
ArtixScan 4500t	4.5	JUN 01	W M	£2,950	Microtek	microtekeurope.com	Microtek	01908 317 797
Versatile, high-quality scanner for medium format films, with the ability to take 35mm slides – a bit on the expensive side, though								
CoolScan	5.0	JUN 01	W M	£649.99	Nikon	www.nikon.co.uk	Nikon	0800 230 220
Digital ICE Cubed technology lets the CoolScan IV beat the old top-of-the-range 2000 and CoolScan 4000 to sit at the pinnacle of the market								
Expression 1640XL	4.0	JUL 01	W M	£1,699	Epson	www.epson.co.uk	Epson	0800 220 546
As a fast, versatile scanner, this can't be knocked – but it's possibly not quite good enough for no-compromise pre-press work								
Expression 1680 Pro	4.5	AUG 01	W M	£859	Epson	www.epson.co.uk	Epson	0800 220 546
Dual-interface scanner that handles both reflectives and transparencies with ease, and provides high-quality scans								
FineScan 2750	5.0	SEP 01	Mac	£6,500	Fujifilm	www.fujifilm.com	CPS	01242 285 100
Fujifilm bridges the gap between studio flatbeds and drum scanners with this simply stunning pre-press-class scanner								
Linoscan 1450	3.5	JUL 01	W M	£1,099	Heidelberg	heidelberg-cps.com	CPS	01242 285 100
It may be noisy, but this is a sacrifice worth making for the low price. Also included are useful software tools and calibration targets								
Linoscan 2650	4.5	JUL 01	W M	£5,495	Heidelberg	heidelberg-cps.com	CPS	01242 285 100
Everything about the 2650 screams quality, from the hardware to the images it captures. It comes with both SCSI and FireWire, and is very quiet								
PowerLook 2100XL Pro	3.5	JUL 01	W M	£1,499	Umax	www.umax.co.uk	Umax	0870 906 4400
An extremely usable and highly versatile A3 scanner that delivers great results, but is beginning to show its age a little								
PowerLook 3000	4.0	JUL 01	W M	£2,950	Umax	www.umax.co.uk	Umax	0870 906 4400
A moving-bed scanner for reflectives and transnries, this model is ideal for pre-press scanning, but isn't versatile enough for other design tasks								
PowerLook 3000SE	4.0	OCT 01	W M	£3,695	Umax	www.umax.co.uk	Umax	0870 906 4400
This good, high-resolution A4+ size film-and-print scanner is helped by powerful bundled pre-press software								
RFS 3600	3.5	SEP 01	W M	£730	Kodak Pro	www.kodak.com	Kodak	0870 243 0270
A compact and stylish 3,600dpi 35mm slide scanner. Good overall, but drawbacks are too-small menus and slightly grainy scans								
Scanjet 7450C	4.0	JUN 01	W M	£469	HP	scanjet.hp.com	HP	0870 241 1485
With its bundled ADF and transparency adaptor, the Scanjet 7450C is a good choice as an easy-to-use, all-in-one scanning solution								
ScanMaker 5700	3.5	JUL 01	W M	£399.99	Microtek	microtekeurope.com	Microtek	01908 317 797
An attractive, one-stop scanning solution with some useful features, but most professional graphic users will need to look elsewhere								
SprintScan 120	4.5	SEP 01	W M	£2,650	Polaroid	www.polaroid.co.uk	Polaroid	01582 632 000
A versatile film scanner for medium-format roll films, 35mm film or slides, that offers excellent quality and good value								

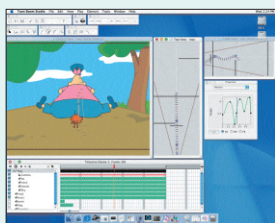


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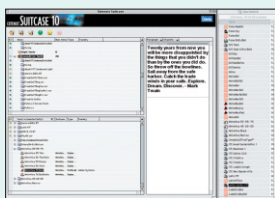
Deneba Canvas 8

After the lacklustre update to FreeHand 10, Canvas 8 is all the more impressive in its innovation, attention to detail, and genuine passion in making workflow better. This is a great application that is defining a genre.



Toon Boom Studio

From the well thought-out keyboard shortcuts to the extensive list of extra features added after the public beta release, you'll appreciate the amount of effort that has gone into this program. If you needed a reason to upgrade to Mac OS X or Windows 2000, this is it.



Extensis Suitcase 10

Suitcase 10 is a virtual must-have, if, like many designers, you have hundreds of fonts, but don't use them constantly. The Suitcase Server is convenient for collaborative working.

TOP TEN WEB TOOLS

The most recently reviewed Web design tools to be awarded a Digit Best Buy logo are:



Adobe LiveMotion 1.0
 Adobe GoLive 5
 Allaire HomeSite 4.5
 BareBones BBEdit 6.0
 Macromedia Dreamweaver 4
 Macromedia Fireworks 4
 Macromedia Flash 5
 Macromedia UltraDev 4
 MGI Interactive Imagine Suite
 Toon Boom Studio

Xara X	4.5	FEB 01	Windows	\$149	Xara	www.xara.com	Xara	01442 350 000
A value-packed vector art package that's rich with both features and Web tools, but lacks decent Flash export and animation								
ZBrush 1.0	4.0	NOV 00	W M	\$292	Pixologic	www.pixologic.com	Pixologic	001 888 748 5967
A powerful true-3D painting tool that's also great fun to use, but it needs less-clean rendering tools, and access to higher resolutions								

Multimedia software

NAME	RATING	REVIEWED	PLATFORM	PRICE	COMPANY	URL	CONTACT	TELEPHONE
Director 8.5	4.5	JUL 01	W M	£949	Macromedia	macromedia.com	CU	020 8358 5857
The multimedia master adds Web 3D, streaming video and more – though there's little new for CD creators								
Stitcher 3.0	4.0	OCT 01	W M	£425	RealViz	www.realviz.com	Keoti	020 7482 4858
An improved image stitcher that now handles complete spheres as well as panoramas – and offers a new Mac OS option								
Xenturi Studio One	4.0	JUL 01	Windows	£495	AuthorCo	www.xenturi.com	AuthorCo	0117 311 2340
Xenturi is a good, simple multimedia tool that is way overpriced – though future developments look interesting								

Web design software

NAME	RATING	REVIEWED	PLATFORM	PRICE	COMPANY	URL	CONTACT	TELEPHONE
avenue.quark	4.0	MAR 01	W M	£149	Quark	www.quark.co.uk	Quark	00800 1787 8275
avenue.quark offers easy-to-use XML tagging and export from XPress documents, but is still missing XML import and StreetPost uploader modules								
BBEdit 6.0	4.5	NOV 00	Mac	£99	BareBones	www.barebones.com	Mygate	020 8297 9699
An essential part of every Mac-based Web designer's toolbox, the latest version of BBEdit adds cool new features and timesaving options								
Dreamweaver 4.0	4.5	FEB 01	W M	£299	Macromedia	macromedia.com	CU	020 8358 5857
An indispensable tool matures providing greater control and extensibility – and the new interface allows easier migration to other products								
UltraDev 4.0	4.5	FEB 01	W M	£399	Macromedia	macromedia.com	CU	020 8358 5857
Both programmers and designers will gain much from the latest upgrade to UltraDev, with Dreamweaver users getting a lot for an extra £100								
Dynamic Link	4.0	MAY 00	W M	FREE	Adobe	www.adobe.com	Adobe	020 8606 4001
Dynamic Link is a free add-on to Adobe GoLive that lets Web designers easily link elements on a Web site to a back-end database								
e-Picture Pro	4.0	SEP 00	W M	\$199	Beatware	www.beatware.com	Beatware	001 650 556 7900
e-Picture Pro has a great feature set and a powerful approach to vector animation. But the interface could do with some refinement								
Fireworks 4.0	4.5	FEB 01	W M	£229	Macromedia	macromedia.com	CU	020 8358 5857
New design features and enhanced integration with other packages make the latest version even more of a force to be reckoned with								
Flash 5	5.0	OCT 00	W M	£259	Macromedia	macromedia.com	CU	020 8358 5857
New user interface, addition of bézier tools, tight integration with FreeHand 9, enhanced scripting, and a new movie explorer								
FrameMaker 6.0	4.0	OCT 00	W M	£535	Adobe	www.adobe.com	Adobe	020 8606 4001
Version 6.0 adds XML and PDF output capabilities to an impressive set of creation, publishing and management tools for documents sets								
Freeway 3.0	3.5	JUN 00	Mac	£199	SoftPress	www.softpress.com	SoftPress	0800 731 34257
Good as a quick tool for laying out pages without any HTML editing skills – but you can't access the code. Ideal for novices with DTP experience								
FrontPage 2002	3.0	AUG 01	Windows	£99	Microsoft	www.microsoft.com	Microsoft	08457 002 000
FrontPage looks more and more like Office every day, and is only worthwhile for the same users – professional Web designers should avoid it								
Fusion MX	3.0	AUG 01	Windows	£99.99	NetObjects	netobjects.co.uk	Softline	01883 745 111
This version successfully marks NetObjects's transition to the business market, but Fusion no longer has any appeal for Web professionals								
Generator 2	4.0	DEC 99	W M	£799	Macromedia	macromedia.com	CU	020 8358 5857
The true future of the Web, but it's a shame that it hasn't really caught on. Great tools and functionality let you create next-generation Web sites								
GoLive 5.0	4.5	OCT 00	W M	£238	Adobe	www.adobe.co.uk	Adobe	020 8606 4001
Tight integration with other Adobe products; leaves foreign code untouched; new database integration. Dynamic link database only writes ASP pages								
HomeSite 4.5	4.0	MAY 00	Windows	£75	Allaire	www.allaire.com	Dabs Direct	0870 129 3120
Provides robust HTML-editing capabilities to end-users comfortable working in a tag-&-text environment								
HotMetal Pro 6.0	3.5	JUN 00	Windows	£67	SoftQuad	hotmetalpro.com	SoftQuad	020 8387 4110
Highly customizable, which can be a little confusing; extensive editing environment and improved media management features; good value for money								
HomeSite 4.5	4.5	JUN 00	Windows	£75	Allaire	www.allaire.com	Candric Software	01753 622 311
The latest version provides robust HTML-editing capabilities to end users comfortable working in a tag-&-text environment								
Hypnotizer	4.0	APR 01	Windows	\$390	Hypnotizer	www.hypnotizer.net	Hypnotizer	020 7546 8694
An easy-to-use, creative first-generation tool with some excellent ideas, but which suffers from relying on a proprietary plug-in								
LiveMotion 1.0	4.5	JUL 00	W M	£189	Adobe	www.adobe.co.uk	Adobe	020 8606 4001
This beats Flash in many ways, including offering a one-stop place for all Web animation work. The timeline is very powerful								
MGI IIS	4.5	AUG 01	Windows	£999	MGI Software	www.mgi-europe.com	MGI Software	01908 278 100
Interactive Imaging Suite is a full-featured but pricey authoring and serving package for high-resolution, zoomable, immersive photographic scenes								
Toon Boom Studio	4.5	SEP 01	W M	\$349	Toon Boom	toonboomstudio.com	Toon Boom	001 514 278 8666
A great tool for creating Web cartoons and animations with export support for Flash and QuickTime – though interactivity is needed								
USAnimation v5 WE	4.0	MAY 01	W L	£5,995	Toon Boom	www.toonboom.com	Pixelution	01462 433 558
Packed with high-end features, this vector-based animation tool now lets you create fantastic Flash animations								

Utilities

NAME	RATING	REVIEWED	PLATFORM	PRICE	COMPANY	URL	CONTACT	TELEPHONE
ATM Deluxe	4.0	OCT 99	W M	£45	Adobe	www.adobe.co.uk	Adobe	020 8606 4001
Cross-platform compatibility and support for OpenType may make this the best font manager for you, even if it's not the most feature packed								
Easy CD Creator	3.5	JUN 01	Windows	£49.99	Roxio	www.roxio.com	Roxio	001 866 280 7694
It's not an essential upgrade unless you're really into your music or video CDs – but overall the package is still the best on the market								
SimpliCD	4.0	SEP 01	Windows	\$50	Oak Technology	www.oaktech.com	Oak Technology	001 408 737 0888
A simple and easy-to-use CD authoring package and – at less than half the price – a cheap alternative to Easy CD Creator								
Suitcase 10	4.5	NOV 01	Mac	£69.99	Extensis	www.extensis.co.uk	CU	020 8358 5857
Font manager with improved user interface and useful custom font loading. Separate Server supports central font storage								
Toast 5	4.0	MAY 01	Mac	£59	Roxio	www.roxio.com	Roxio	001 866 280 7694
The Mac's main CD burning software is now right up to date. It tackles DVD, Video CD, and can record in the background								
Virtual PC for Windows	4.5	OCT 01	Windows	£169	Connectix	www.connectix.com	CU	020 8358 5857
An excellent tool that lets you run older versions of Windows – great for checking your Web sites against older OSes								

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Griffith Gothic, Hanal, Interstate, Dungeon, Evil Type and Frutiger

TECHNOLOGY

Apple G4 533, Apple G4 466, Apple G4 500, Apple iBook, Apple G3 PowerBook, Compaq AP250, Dell Precision, Adobe Photoshop, QuarkXPress, Macromedia FreeHand, KPT 6, MS Office, Adaptec Toast, Ben 'n' Jerry's

PRODUCTION SERVICES

Repro - Lumis, 020 7833 2661
 Printed by St Ives (Roche)

DIGITAL STOCK PHOTOGRAPHY

Unless otherwise stated stock photography is courtesy of Cadmium (www.cadmium.co.uk)

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 Fax (ads): 020 7405 0262

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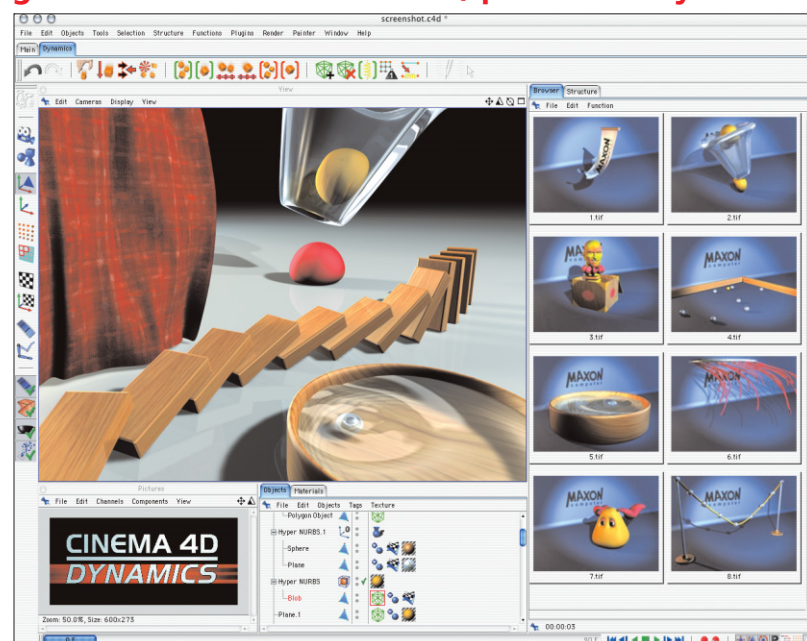
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Previously, print-illustration artists were required only for prettification – adding asinine blocks of colour, rather than adding to the story.



SIMON JARY

Illustrators make the news

Read all about it! Read all about it! Extra! Extra! Hold the front page... Newspapers are relevant again. Just when you thought that *Hello*, *OK*, *Heat*, and all those copy-cat celebrity-worshipping magazines had triumphed, along comes a news story that doesn't feature Posh Spice. Huge rolls of newsprint are suddenly spinning again.

Of course, the news story itself is very bad news. But the sudden downturn in world peace has proved that there's a very willing market for hard-news stories. It's heartening that a four-page story on the state of Afghanistan's rebel forces is more interesting to a large proportion of the population than Ross Kemp's new conservatory.

Almost immediately, a once-great feature of newspaper illustration returned to claim its place as the premier storytelling graphic element above even the holy graphics grail of photography. When some early graphic designer boasted that a picture is worth a thousand words, he or she wasn't talking about photography – despite that medium being the number-one design element for the last 50 years.

The graphic medium that can really brush a few thousand words into the sub-editor's wastebin is illustration. I don't mean the washy chalk sketches that are used to show crims and witnesses in newspaper court-case reports. And I am certainly not referring to those mushy watercolour splurges that prettify the travel and style sections.

The daddy of all publishing illustrations is the info-graphic. You can't have escaped the pages of

info-graphics in newspapers over the past month or so. Immediately after the terrorist outrages, there were double-page, broadsheet spreads of New York's collapsing World Trade Center twin towers with cut-aways showing the offices, escape routes and surrounding locations. There were supplementary info-graphics allowing readers to see how the hijackers took control of the aircraft, and yet more peeling back the layers to explain exactly how the emergency services coped with the unfolding disaster.

Later, there were superb info-graphics of US aircraft carriers, stripping back their hulls to show the deadly weaponry inside. More info-graphics showed how cruise missiles find their targets, how Stinger anti-aircraft missiles pose a threat to allied forces, how the terrorists use the rugged terrain to hide, and even how to blow-up cave bunkers.

For all their bravery in the field, the wordy news reporters were trumped time and again with superb 3D cut-through graphics. And while I am a big user of the Web for the most up-to-date news, even Flash hasn't caught up with the illustrator's art. The most dynamic news source the world has ever known is still limited to long pages of text, a ticker, and a few JPEGs.

Print, meanwhile, is having a heyday. Adobe, Macromedia, Deneba and Corel should rush-promote their Illustrator, FreeHand, Canvas and Graphics Suite products immediately. Indeed, if you bought the previous issue of *Digit*, you'll already own a more-than-capable art tool – Canvas 6.0 (upgradeable to version 8.0 for just £149).

The art of the info-graphic has been revitalized by our desire to truly understand the news affecting us all right now. Previously, print-illustration artists were required only for prettification – adding asinine blocks of colour rather than adding to the story.

Indeed, the art of info-graphics had nearly expired, kept alive in print in the sports pages – witness the big arrow showing how David Beckham booted us into the 2002 World Cup finals, or how Tiger Woods made that impossible chip at the 17th. The real guardian of the 3D cut-through info-graphic, however, is British publishing house Dorling Kindersley, whose books – such as *The Way Things Work* and *Eyewitness Guides* – include an unrivalled and amazing quantity of explanatory artwork.

So long ranked below fashionable photography and, lately, Web design, quality illustrative artwork has returned to remind us that pictures aren't just there to fill space and catch the eye. All of us who work in the graphics and publishing industries should be grateful that a half-lost medium has returned the artist to the forefront of news reportage.

Many claim that photography stopped the war in Vietnam. Certainly, the power of the image can arrest many an ongoing action with its power to shock. The wonderfully lucid info-graphics we see in newspapers and magazines today aren't going to call a halt to the killing with their power to explain, but they can help us all to at least understand the strategies and mechanics of what the hell is going on. 

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